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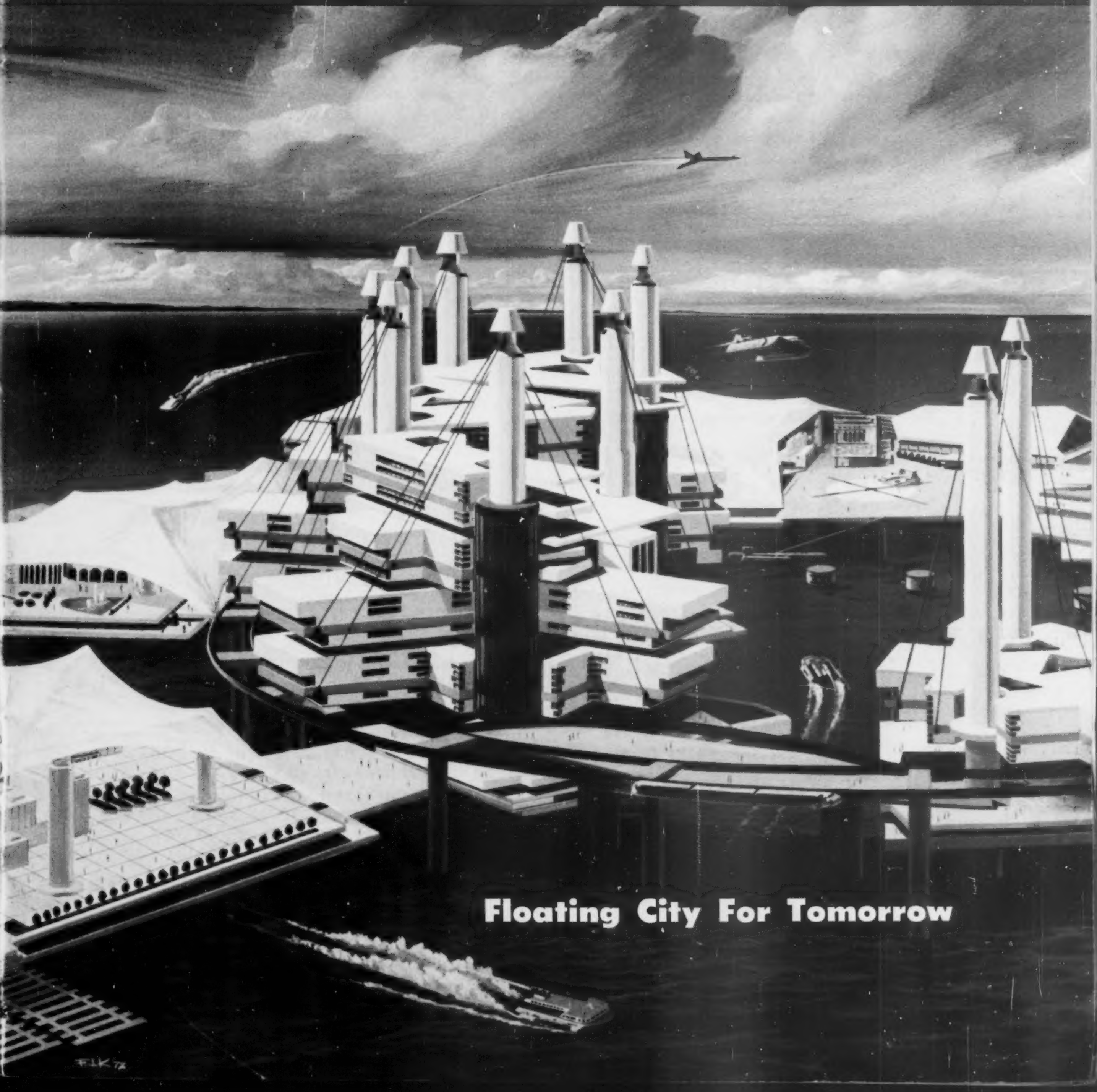
Incorporating *International Commerce*

SEPTEMBER 4, 1972

Commerce Today

Coming Developments in Business and Technology



Floating City For Tomorrow

Newsmemo

Next step in the proposed metrication of the United States is testimony before the House Science & Astronautics Committee. This follows recent Senate approval of a bill which would start the nation on a ten-year path of voluntarily changing its measurement system to metric. The bill is the result of a three-year study conducted by Commerce's National Bureau of Standards which concluded that it was in the nation's best interest to join the majority of nations of the world in adopting the metric system.

American citizens with international business experience are being sought currently by recruiters for the U.S. Foreign Service. They have the opportunity to advance their own careers and serve important national interests as Economic and Commercial Officers (and Administrative Officers) in overseas posts. Applications to take a Dec. 2 exam in 295 cities across the country must be postmarked by Oct. 21. Persons in the 21-57 age bracket may write for applications and complete information from the Board of Examiners for the Foreign Service, Room 7207, U.S. Department of State, Washington, D.C., 20520.

U.S. companies hurt in overseas markets by nontariff barriers or in the domestic market by subsidized imports can take a current step toward a remedy. They can respond to a survey seeking specific examples of such injuries, now being circulated by the National Association of Manufacturers and 26 key trade associations. Results will be turned over to U.S. Government negotiators who will be examining special trade protectionist activities in upcoming multilateral talks. Several thousand firms have already received the NAM questionnaire, prepared with Commerce Department help. Others that have specific examples to report may obtain one from the Int'l Economic Affairs Dept., NAM, 1133 15th St., N.W., Washington, D.C., 20005.

Eximbank has more than tripled its support of U.S. export sales in the past three years. Exim's head Henry Kearns reports that the bank's 6,200 transactions in the fiscal year just ended, resulted in support of $9.5 billion in sales of U.S. products and services abroad. That's a 38 percent increase over FY1971 and more than three times the total of FY1969. Kearns and his Eximbank team traveled to 91 countries, talked to more than 15,000 businessmen, and identified nearly $10 billion in U.S. export business potential over the year's period. And during the present year, Kearns promises, such efforts "will continue and accelerate."

Commercial benefits from Government R&D are limited in number and are not spread evenly among all sectors of the economy, Dr. Robert W. Cairns, Deputy Assistant Secretary of Commerce for Science & Technology said last week in New York. "A certain mythology has developed that Government R&D provides a cornucopia of products and processes useful in the civilian economy. Yet the civilian industrial payoffs from defense or aerospace R&D are simply inadequate when compared with the enormous investment of public funds in this type of activity. More long term effort must be paid to these payoffs, but the immediate need is to help stimulate the technology in the private sector."

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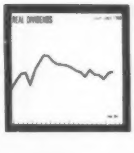

The business community has fully cooperated with the voluntary dividend restraint program and dividends have increased so far this year only 2.7 percent over a year ago. Dividends peaked in 1968 and declined thereafter but now have stabilized.

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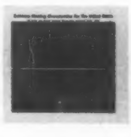

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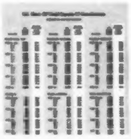

Strike ends, manufactured export share up—Modular housing trade mission report from Japan—New "E" awards for export excellence—Economic outlook in Great Britain—Trade situation in several African nations—Commerce Department overseas promotion schedule.

COVER: *One solution to earth's growing overcrowded condition may be the building of floating cities in the oceans. Story beginning on Page 4 tells of one idea for such a city which the State of Hawaii is considering to mark the bicentennial of the nation's founding as well as the discovery of the Islands.*

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ECONOMIC
HIGHLIGHTS

Dividends Held To 2.7 Percent Gain Under Voluntary Restraint Program

Economic Highlights is prepared by Dr. Harold C. Passer, Assistant Secretary for Economic Affairs, and is based on the latest economic indicators (see charts on adjoining page).

The statistics on corporate payments to stockholders tell a remarkable story of cooperation by the largest 7,000 U.S. business corporations in the Administration's voluntary dividend restraint program. Payments by all corporations have increased only 2.7 percent so far in 1972. This is a small increase for a strongly rising economy and it is less than half the long-term average.

The cooperation of the business community has been the key factor in the success of the dividend restraint program, which has been conducted by a minuscule bureaucracy, with a minimum of regulations, and without mandatory provisions.

As indicated by the charts, dividends have been rising in recent years but, in real terms, they peaked in 1968 and declined thereafter. Corporate after-tax profits in real terms peaked in 1966 and in the second quarter of 1972 were still 17 percent below that level. The increase in payments to stockholders so far this year has not quite equalled the rise in consumer prices while the real purchasing power of production workers has gone up 4 percent.

The restraints on dividends have bolstered retained earnings and this has had a salutary effect on the economy. Corporations have more funds to purchase new production facilities that eventually result in more jobs and more income. Also, corporations do not need to borrow as much for expansion and this has helped keep interest rates at moderate levels.

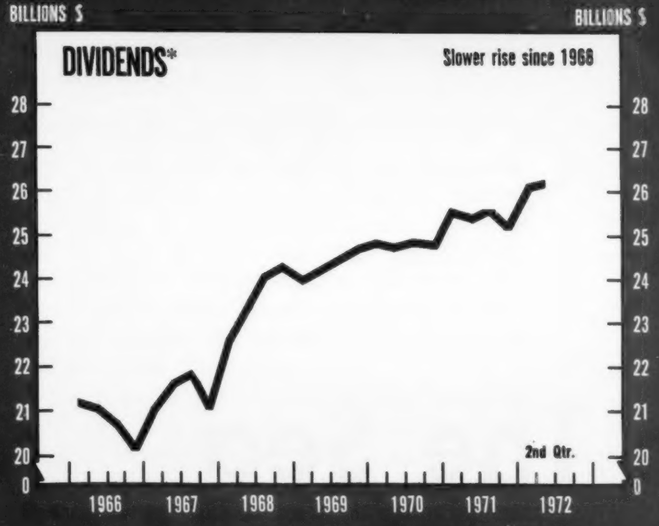
Under the program, companies are requested to hold any increase in dividends in 1972 to not more than 4 percent of the amount paid in the base year. Companies may use fiscal years 1969, 1970, or 1971 or calendar 1971 as a base year in computing the 4 percent increase for 1972. For the benefit of companies that paid no dividends or that had greatly depressed dividend payments in recent years, an optional ceiling of 25 percent of 1971 earnings is provided. For 1973, the permissible increase in dividends is again 4 percent.

Announcements of increases in quarterly payments have sometimes left the wrong impression of the size of the dividend increase. For example, a corporation that made four quarterly payments of 25 cents each in 1971, or a total of $1.00, would be entitled to a permissible ceiling of $1.04 this year. If it paid three 25-cent dividends in 1972, and then increased the payment to 27 cents in the fourth quarter, the gain over the fourth quarter of 1971 would be 8 percent (27 cents divided by 25 cents = 1.08 or an 8 percent increase). However, the program is on an annual basis, and the total 1972 dividends of $1.02 would be only 2 percent higher than the 1971 total of $1.00.

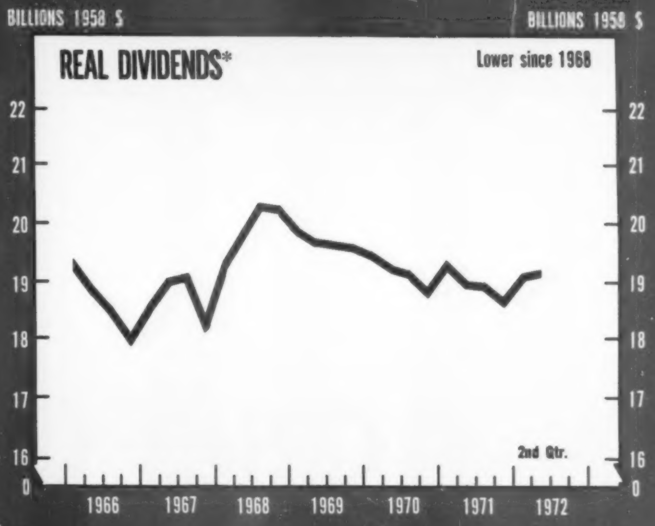
If the 27-cent quarterly dividend payment is continued in 1973, the total dividend will be $1.08 or 4 percent above the maximum amount that could have been paid in 1972. Thus, in this example, the dividend increases in both 1972 and 1973 are in conformance with the guidelines.

The dividend restraint policies are formulated by the Committee on Interest and Dividends. The dividend program, operated by a small staff under the supervision of the Assistant Secretary of Commerce for Economic Affairs, covers only companies with more than 500 stockholders and more than $1 million in assets. These companies account for a large percentage of total dividends. Companies, regardless of size, are not covered if 80 percent or more of their stock is owned by a company that is included in the program. The 42 field offices of the Commerce Department serve as information centers for the dividend restraint program.

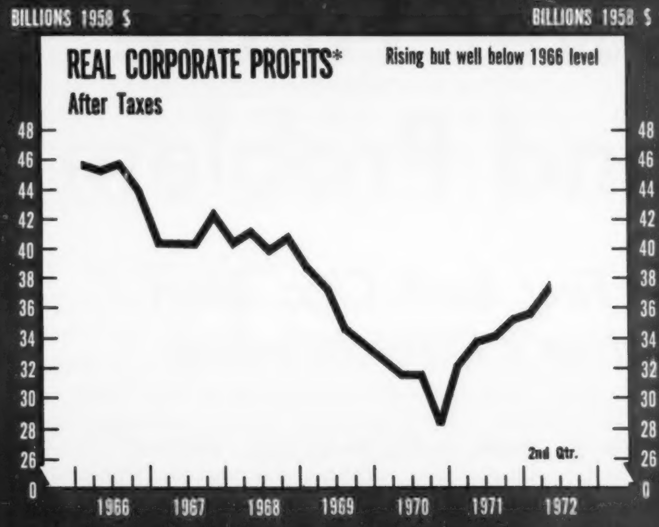
Latest Indicators



DIVIDENDS* Slower rise since 1968

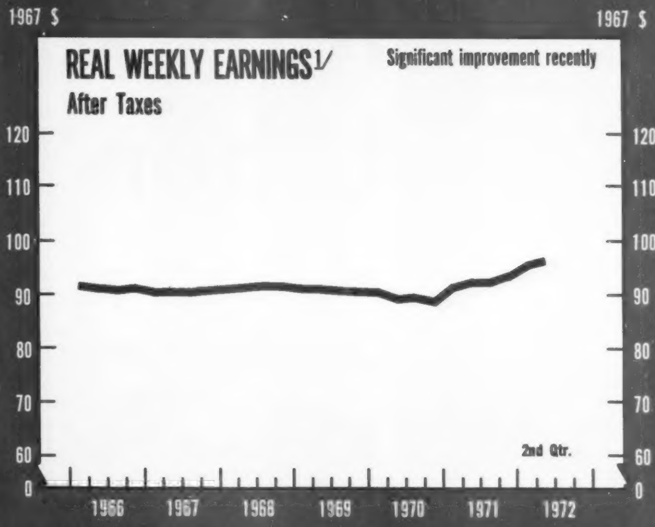


REAL DIVIDENDS* Lower since 1968



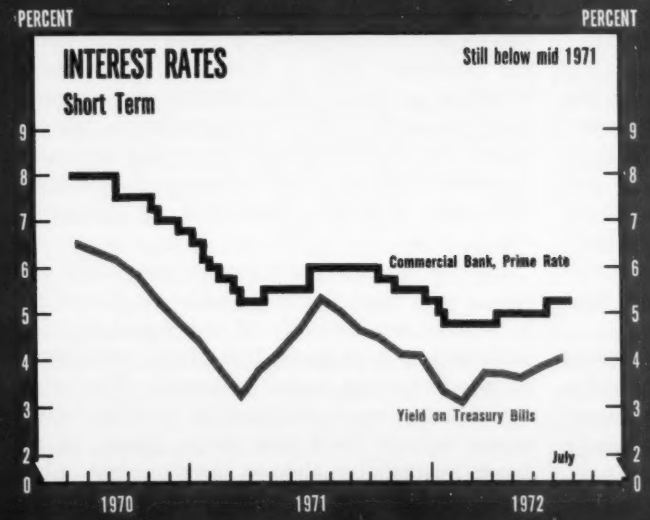
REAL CORPORATE PROFITS* Rising but well below 1966 level

After Taxes



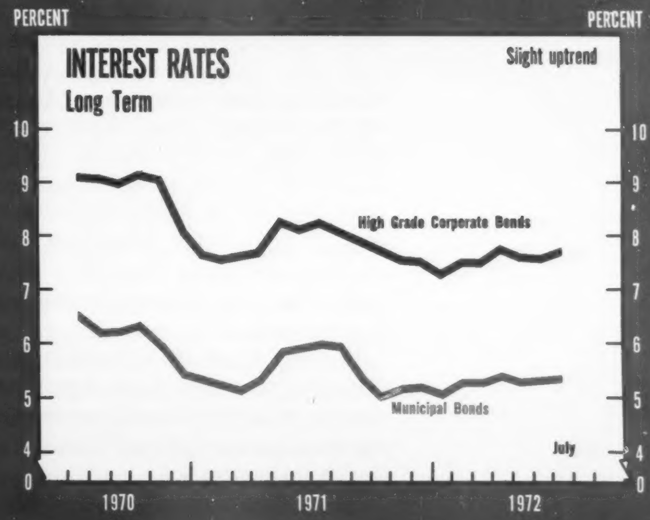
REAL WEEKLY EARNINGS1/ Significant improvement recently

After Taxes



INTEREST RATES Still below mid 1971

Short Term



INTEREST RATES Slight uptrend

Long Term

* Seasonally adjusted at annual rates

1/Private non-agricultural workers. Excludes social security and Federal income taxes calculated for workers with three dependents. Seasonally adjusted.

Commerce Today
Vol. II, No. 24
September 4, 1972

Cities On The Sea May Answer Future Urban Land Problem

Plan Afoot To Build First Such City; Seen One Solution To Nation's Overcrowding

Business, industry and the lifestyle of tomorrow's citizenry is bound to be affected by an event shaping up down in the nation's 50th state, the Hawaiian Islands. Quite possibly, one solution to the earth's overcrowding may also be at hand.

A plan is afoot to build a floating city, what has been called an "Atlantis in the Pacific," which would rise from the ocean three miles out of Honolulu. The technology is available. Applying it and putting the plan into action is the job of a determined group of scientists, engineers, businessmen, students and state legislators who are presently deep into plans for the world's first floating city.

In the fall of 1971, Commerce's National Oceanic and Atmospheric Administration approved an $85,000 Sea Grant for an engineering feasibility study of floating community design concepts.

So a 123rd Hawaiian Island begins to take shape—in men's minds, on the drawing board, in the model tank—and suddenly it doesn't seem a fantastic notion envisioned by science fictionists.

The man behind this project is John P. Craven, dean of marine programs at the University of Hawaii and marine coordinator for Governor John A. Burns. He has been asked to come up with plans for an international exposition that will span two celebrations—the 1976 bicentennial of the nation's founding and the 1978 bicentennial of the Hawaiian Islands, discovered by Captain James Cook.

Dr. Craven believes the exposition could be set up on a huge floating platform. It would be a self-contained city at sea linked to the mainland by high speed hydrofoils, container barges and other water transport. The city would also have a heliport to provide helicopter service back and forth. Here, in a single project, Dr. Craven envisions not only a tremendous tourist attraction and fitting tribute to progress in the marine sciences on the island state, but also the prototype of a solution to opening the oceans, representing 70 percent of the earth's surface area, to new settlement.

Wedged-shaped modules

There is endless speculation as to how such floating platforms could be utilized in future community and business planning. Experts see them as mobile oil-drilling rigs, factory sites, mineral mining surface facilities, nuclear power plants, weather stations, or fishing fleet bases. A number of military uses are apparent also.

The floating city Dr. Craven sees would be built on a ring of wedge-shaped modules circling a central harbor. The areas of each module would be about a city block. Dr. Craven would like to see a minimum of ten modules for this island city. A monorail might circle the inner city and still more modules built on the track's outer perimeter to allow more living and working space. Except for commercial services, the general rule would be pedestrian traffic only. Upper-level structures would be reserved for living and recreation, lower levels for support services.

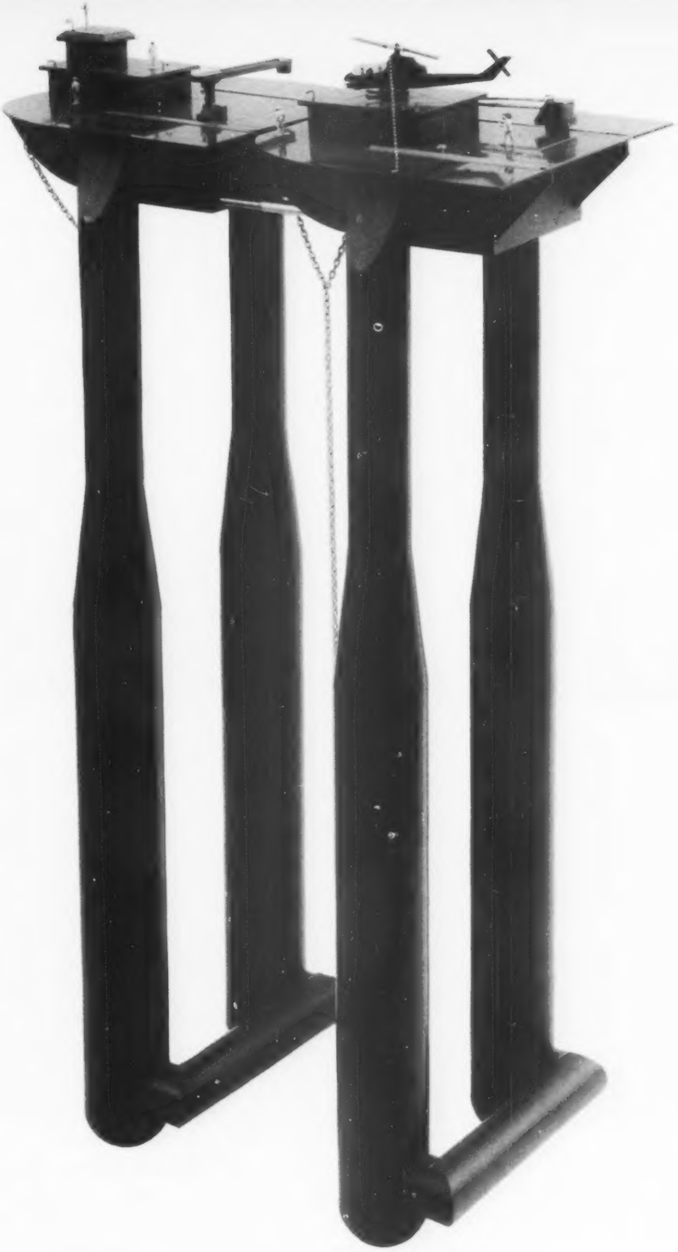
No battering effect

The city's sea legs would consist of large reinforced concrete hollow perpendicular cylinders, three to a module, partly above and partly below the water. The legs provide stability as well as support for the module, which is suspended between them. The underwater portion of these legs would extend down 200 feet. The underwater diameter of each cylinder would be 80 feet. This draft would place most of the structure's mass below the influence of surface waves.

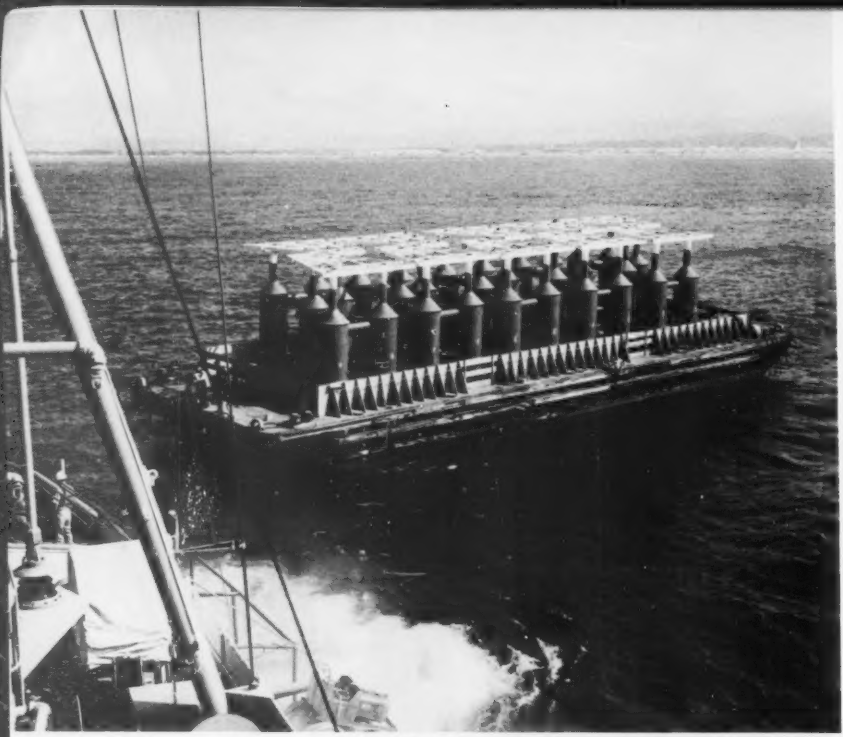
Near and above the surface, the legs would narrow to 27 feet so that surface waves would be essentially undisturbed, preventing their battering effect on the structure. The ballast of each leg could be controlled individually and, in fact could provide housing for the community's power plant, garbage and sewage treatment plant, fuel and fresh water storage.

These supporting cylinders are probably the structure's most eye-catching feature. Their concept, however, is nothing new to ocean engineers.

As early as 1956, scientists at Woods Hole Oceanographic Institute in Massachusetts conceived a Floating Laboratory Instrument Platform, more flippantly known as FLIP because of its unusual method of being set up in the ocean. FLIP was designed as a ship which sinks by the stern until it stands upright with only 55 of its 355-foot length above the water. The first one put to sea in 1960 and became a familiar sight at ocean science project sites such as the Barbados Oceanographic and Meteorological Experiment



FLOATING CONCEPT—*One concept of the Floating Laboratory Instrument Platform-type structure is this plan for a stable platform with legs which pivot from a horizontal towing position to the vertical on-station. This platform will be made of two units, each with two FLIP-like, 350-foot concrete legs. The modules will be towed to their station in the horizontal position, the hinged legs will be flooded and swung down, and the two connected.*



MODELS TESTED—*Scale models of the wedge-shaped modules designed to support the proposed floating city are towed to sea for testing. The idea is to build the city on a ring of such modules circling a central harbor. Each module would measure about a city block and a minimum of ten would be required for the proposed structure three miles off Honolulu.*

(BOMEX) which was conducted in 1969.

FLIP's primary mission was to listen to the tiny wave motions in open water which cause refractions in sound. It proved enormously successful. But more importantly, FLIP proved to be a most stable platform which since has been repeatedly demonstrated in deep sea operations. The above-water portion could negotiate waves 30 feet high as the radically designed tube-like ship moved less than three inches up and down.

An intriguing application of the FLIP concept is the Manned Open Sea Experiment Station (MOSES) project which is being developed by the Oceanic Institute of Hawaii and is supported in part with Sea Grant funds from Commerce's National Oceanic and Atmospheric Administration.

MOSES is a FLIP-like structure which is towed to its ocean station and flooded until it stands upright. Unlike FLIP, however, MOSES will be used for biological research. Its facilities will include laboratory and living space for eight scientists. Extending throughout most of the structure will be a hollow shaft with an internal elevator and viewing stations allowing a view of the open sea from almost any point along the station's length.

From 40 to 70 feet below the surface a large bulge will contain variable ballast, fresh water and fuel supplies and sewage storage. The scientists must obviously avoid polluting the water which they are studying. A laboratory chamber is planned at the 230 foot depth.

Still another variation of the FLIP design is found in plans for a 15,000-square-foot stable floating platform with legs which pivot from a horizontal towing configuration. This project, which culminates nearly three years of design study is under the joint technical management of the Advanced Research Projects Agency and the Office of Naval Research. This platform will be made of two units, each with two, FLIP-like, 350-foot concrete legs. The modules will be towed to their station position in the horizontal position, the hinged legs will be flooded and swung down leaving the platform portions horizontal. Then the two sections will be connected to form a single unit.

The idea of a floating community off Hawaii got its impetus in 1970 when the state's lawmakers enacted a bill calling for a marine exposition to be held in 1976. Dr. Craven, as marine affairs coordinator for the state, was authorized to investigate ways and means an exposition could be brought about. The initial investigation concentrated on the relationship between Hawaii and its marine environment and drew heavily on the Governor's Task Force Report, "Hawaii and the Sea," published in 1969 as an expansion of the report on the present and future of "Our Nation and the Sea," by the Commission on Marine Science, Engineering and Resources.

Marine architecture

Suggestions solicited from business and community leaders developed the idea of relating the marine exposition to the national bicentennial and to the Hawaiian bicentennial. It was decided to combine the two into a single celebration spanning the period of July 4, 1976 to January 13, 1978, the date of discovery of the islands. The exposition was to concentrate on a demonstration of the use of the marine environment for the future societies of men.

John Craven's floating city seemed a natural.

In the spring of 1971, a preliminary study of such communities was begun by the University of Hawaii, the Oceanic Foundation, and the U.S. Navy's Naval Undersea Center. Leading the study was a committee of experts on such subjects as architecture, ocean engineering, marine systems, marine construction, and even social considerations. Senior architectural consultant for the project was Kiyonori Kikutake of Japan, a man with an international reputation for marine architecture. Parallel with the study, a seminar was held on "The City and the Sea," examining city planning, sociological and engineering factors in the design of floating marine communities.

The result of the 1971 study was an architectural-engineering design which could be realized by 1977 under normal growth and development and by 1976 under priority development. The study is continuing independently through state funding in an attempt to elaborate architectural and special utilization plans. This part of the study will be complemented by a course in Ocean System Engineering at the University of Hawaii in which the students will engage in a system design study for the marine exposition.

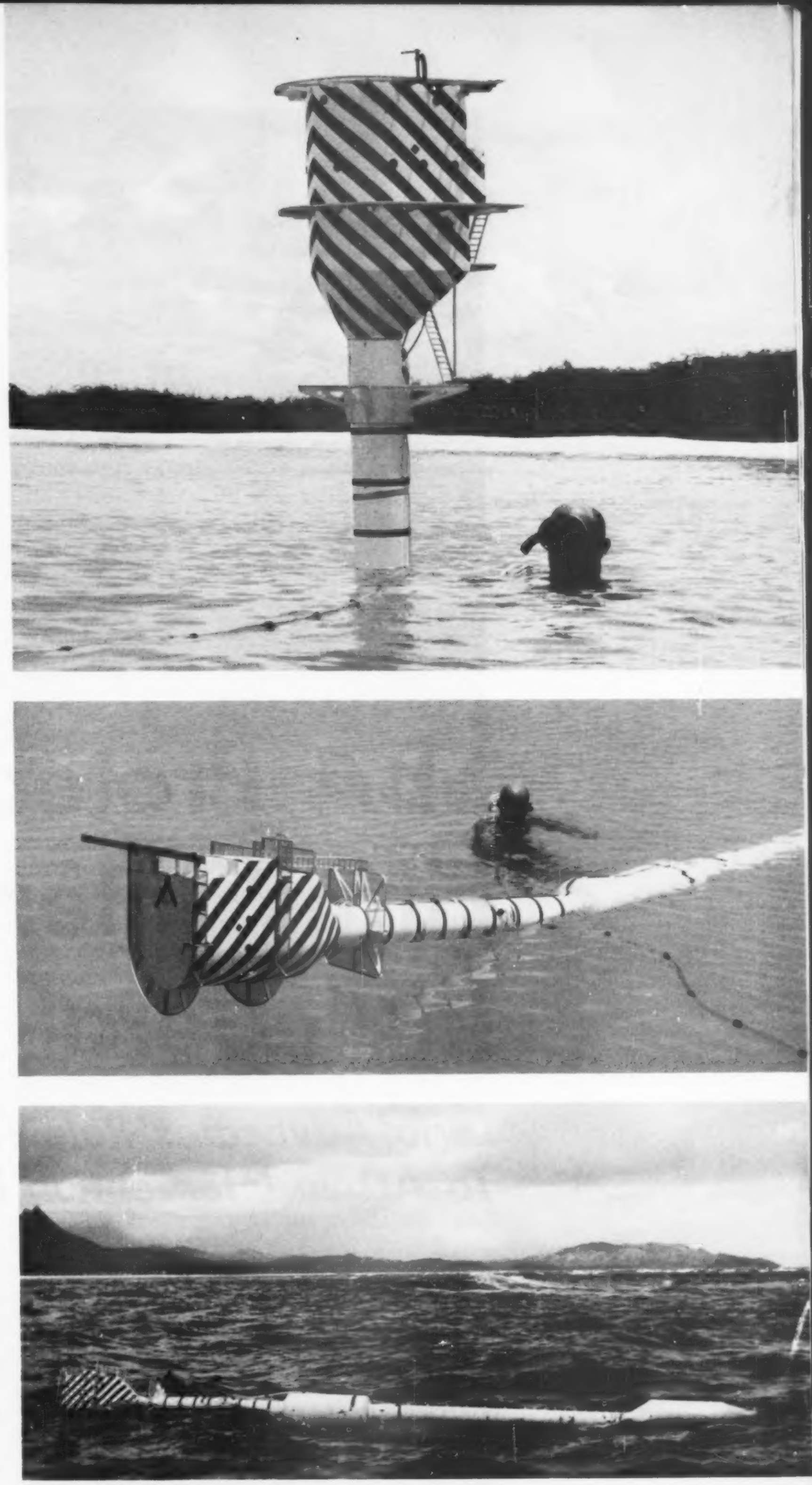
Cost analysis

As a part of this study, a 1/20th-scale model has been built and is being tested under simulated deep-sea conditions. The five major areas of engineering interest in this study have been defined as the mooring system and hydrodynamics, structures, construction, environment, and systems integration.

Another phase of the engineering feasibility study is a cost effectiveness analysis of the floating complex. Here, engineers and economists join in trying to predict the answer to the very basic question, "is it worth it?" They describe the city not as a solid thing of steel, concrete, and glass, but rather in such terms as the skill and man-hour levels necessary for its construction and maintenance, the ways in which the complex will serve its human inhabitants, and the floating city's merits as compared with communities built on the coast or landlocked.

As this study continued this spring, the state passed legislation to establish a commission for marine exposition and to prepare for the establishment of a public corporation or other appropriate mechanism to conduct the exposition.

The nation's bicentennial celebration may see the beginning of a new lifestyle for future generations on this overcrowded planet as man returns to the sea to live. *—NOAA*



PLACEMENT OF MOSES—*Scale model of the Manned Open Sea Experiment Station (MOSES) being developed by the Oceanic Institute with support from a NOAA Sea Grant is tested in its upright position (top) and returned in lower pictures to towing position. Striped portion would be laboratory-living quarters. The main ballast tank is at the opposite end and near the middle are tanks for ballast, fuel, water and sewage.*

SBA Protects Small Firms' Interests In Federal Dealings

Legal Advocates' Role Varies From Consultation To Active Intervention In Behalf of Clients

As the small businessman's principal legal advocate in the federal establishment, the Small Business Administration insures "the view of small business concerns will be fully heard, their rights protected, their valid interests fully advanced."

John Knebel, SBA's General Counsel, explained the agency's active "advocacy program."

Realizing that a favorable business climate for smaller firms can only result from a joint effort by the private sector and local and Federal Governments, Knebel said SBA—in its advocacy role—consults with other government agencies. And, in some cases intervenes in government actions to assure that the actions, rules, and policies of these agencies treat small business fairly and adequately.

Specific intent of the advocacy efforts, Knebel explained, is to influence government actions affecting the financial and competitive strength of small concerns, including opportunities for free entry and expansion in business areas.

Increased representation of the interests of small business concerns before departments and agencies of the Federal Government was provided by an Executive Order of

ADVOCATES IN ACTION—*A typical scene for the SBA legal advocates in this federal hearing room where lawyers and SBA staff members protect the interests of the small businessmen of the Nation.*

President Nixon, March 20, 1970. It recognizes SBA as the agency within the executive branch of government which is especially responsible for and with an established program of advocacy in matters relating to small business.

The order directs SBA to take action to present the viewpoint of small business to other Federal agencies.

President directs

The President's order also directs all government agencies to call upon SBA for advice and consultation when acting upon matters materially affecting small business concerns, and that such agencies should fully consider and advance valid small business interests.

Although SBA has no power to direct the actions of other federal agencies or departments, its advocacy program can significantly influence them in giving greater weight to small business interests.

SBA does not represent individual firms. However, if a matter is found to involve a substantial number of small firms with a common interest, SBA will work with them in advocacy actions to assist in the presentation of the small business viewpoint.

Since advocacy cases may require a wide range of economic and business data on industry background, SBA maintains liaison with trade associations and other sources which provide information on the impact of government actions and regulations on small business.

SBA does not try to insulate small firms from competition or change, or from normal costs of compliance with the accepted rules of doing business, Knebel emphasized. He added that SBA does believe that the values of society and the free enterprise system warrant giving special attention to assure that government rules accord fair and responsible treatment to the needs of small concerns.

A major aspect of the advocacy program is directed toward encouraging the formulation and clarification of agency rules in areas important to small business. Where appropriate, SBA will argue for special preference or exemption for small concerns.

The small businessman's "advocate" also assists agencies in recognizing harsh economic effects of their activities on small business concerns, and in attempting to mitigate or relieve those effects.

Many advocacy cases involve competitive conflicts between small business and large companies. Frequently, regulatory agencies are subjected to heavy big business pressures in their rules or enforcement actions. SBA advocacy can assist in restoring the balance by supporting agency actions necessary to protect the interests of small concerns.

SBA has voiced its position on a broad range of issues. Significant Agency action thus far in 1972 has included participation in public hearings on implementation plans for air pollution control in 28 states. This has resulted in a greater appreciation of the needs of small businessmen by state air pollution control agencies.

SBA recognizes the desirability of strong efforts to combat air pollution.

"However," Knebel explained, "it is clear that controlling air pollution to meet the standards of the Clean Air Act will require costly measures. If these are not moderated, they could result in the impaired competitive viability or even the demise of some small business concerns."

"Small business is a vital part of the dynamic, productive capacity of this country, with a significant role in the efforts to minimize damage to the environment," he declared, "but, rigid enforcement of expensive plant and process alterations could impose a disproportionate burden on small businesses which have fewer sales to absorb additional costs and less financial strength to maintain their continuance and development."

SMALL BUSINESSMAN WORKS—*Richard Locklear, owner of Cherokee Construction Co. of Alexandria, Va., is typical of the small businessman building his business from scratch. Although SBA legal advocates do not represent individual businessmen, they protect the common interests of small business.*

John Knebel
SBA General Counsel

It was pointed out by SBA that the Clean Air Act and Environmental Protection Agency ambient air pollution regulations allow ample flexibility to the states to fully recognize the special problems of small business. EPA regulations specify that the states may take into account the social and economic effects of their control measures, as well as the relative cost effectiveness of alternative strategies to meet the mandatory air standards within the time periods of the Act.

Knebel said that in response to SBA's indication of its concern over compliance problems of small firms, EPA officially informed SBA that "state and local control agencies should apply control strategies with flexibility, discretion, and good judgment to accommodate local situations."

Further, EPA stated, "this agency is very much aware of the unique problems facing small businesses in complying with pollution control requirements, and it has historically been our practice to enunciate this concern in our dealings with state and local control agencies."

"This is just one example of SBA's advocacy efforts," Knebel offered—"efforts which represent one more resource brought to bear upon small business problems, and one more way in which SBA maintains responsiveness to the needs of the small business community."

—*Small Business Administration*

Apache Ski Resort Puts Tribal Economy On Solid Footing

Mescaleros Turn Sacred Mountain Into Resort; Make Tourism Major Industry

By turning their New Mexico hunting ground into a 100,000-acre recreation area for the white man, the Mescalero Apaches are making tourism a major industry that will bring economic growth and year-round job stability to their Tribe.

The Mescalero Reservation is the closest Alpine terrain to a tourism market of nine million persons. Its tourism triad will run the gamut in year-round recreation and entertainment. Already, the proud descendants of Geronimo and Cochise have turned their sacred mountain into a ski resort.

The Mescaleros developed and expanded the Sierra Blanca Ski Area at a cost of $3 million and proof of its success is found in the gross revenue. The ski resort's gross revenue has increased by approximately 30 percent each year for the past five years, a record not shared by other ski facilities in the Western states.

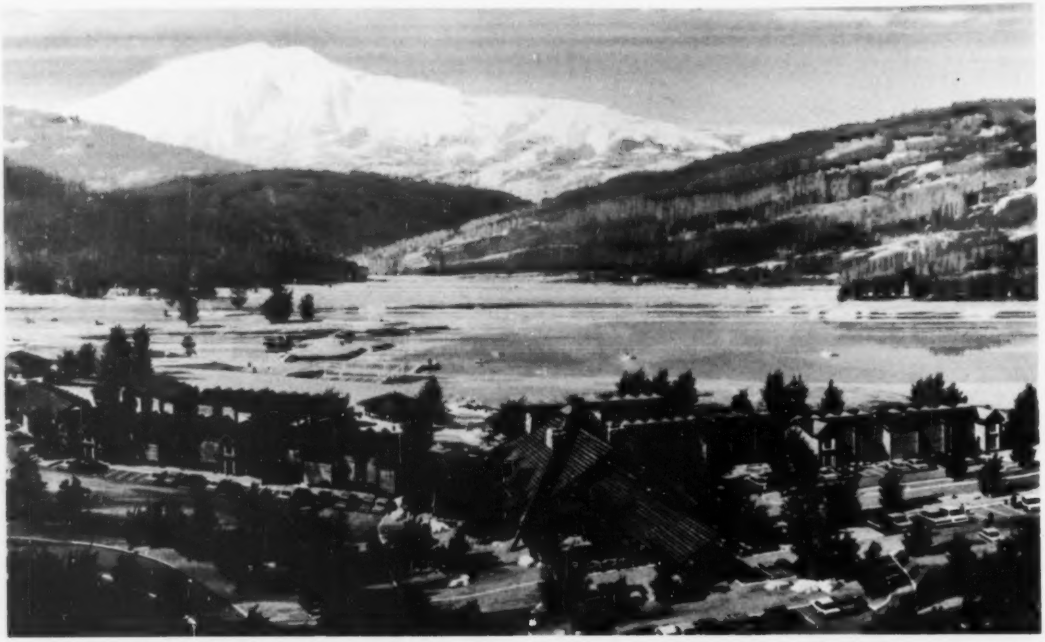
None of this $3 million development involved funds from Commerce's Economic Development Administration. In fact, it was this demonstrated willingness on the part of the Mescaleros to plan for their own future development that prompted the Commerce agency to designate the Mescaleros as one of the first for assistance under the Selected Reservations Program.

Ciengita project

Ciengita, a resort complex, is the core of the Mescalero recreation triad and EDA has pumped $4,282,600 of its funds into this project, scheduled for completion in June, 1973.

The Ciengita complex consists of:

- A 125-room resort hotel with public



MESCALERO MODEL—*An artist's rendering of the recreation and tourism complex being built on the Mescalero Reservation. Extensive advance planning by the Tribal Council has made the Mescalero project a model of success in recreation development projects on the Indian reservations.*

rooms designed for facilitating meetings.

- A 100-acre lake.
- An 18-hole golf course.
- Public works which include roads, water and sewage systems, and numerous public recreation facilities around the lake and hotel.

Ray Tanner, EDA's Special Assistant for Indian Affairs, says the Mescalero project is among 34 Indian recreation projects scattered throughout the country in which EDA has invested $38.4 million. The tourism investments, primarily designed to create year-around jobs and economic stability for the Indians, also pump millions of dollars into the economy in terms of a "multiplier effect."

Diversified investments

Because of the diversity of the investments in projects ranging from lakes to motels to craft centers, travel industry experts say, it is impossible to estimate the return in dollars and cents on each EDA dollar invested.

However, the State of Texas has offered a good example of return on dollars invested in tourism and tourist promotion. Texas spent $1,518,000 in 1971 to attract visitors to the state's tourist attractions and received a return of $109 to every $1 of state government funds spent.

For its $1.5 million Texas spent in attracting tourist, the State received $165,780,000 in additional state taxes paid by the visitors. There are a number of similar illustrations that prove tourism is one of America's biggest industries.

With Ciengita as the key component of the Mescalero's tourism triad, the Sierra Blanca Ski Area and Rinconada Dude Ranch and Hunting Lodge have been predicated on the Tribe's commitment to realize Ciengita.

Ciengita, which has been the first priority economic development of the Tribe for the past six years, will provide complete facilities for tourists, including lodging, food, beverages and varied recreational opportunities.

It will improve the economic capability to hire a highly qualified management staff that will be used by all other parts of the triad and future tourist-recreation developments.

Users of the facility will be spending most of their vacation dollars at the facility, creating an even more significant multiplier effect in other developments. They will be "on hand" so that they can be encouraged to visit other reservation "do and see" activities. The operating staff will be hired from the reservation unemployed. Through adjacent, off-season developments made possible by this project, seasonable labor fluctuations and maintenance operation variances can be minimized.

Ciengita is the facility from which other Mescalero projects will expand. It is a core complex in the real growth center tradition.

It was first conceived in the early 1960s when the Tribe decided to encourage on its own terms, non-Indians to come and enjoy the reservation and its attractions, such as its protected game of bear and deer, its cool mountain streams stocked with foot long trout and the beauty of its Alpine terrain.

The Mescalero development is among the most successful tourism ventures to date, probably because of the extensive planning by its tribal council, which has been presided over for more than 10 years by Wendell Chino, president of the Tribe.

Its success is measured in median family income. Largely due to the ski facility and related economic benefits, the median family income at Mescalero Reservation rose from $1,023 in 1962 to $2,430 in 1970—an increase of over 100 percent in a two-year period—although still well below the standard U.S. family income statistics. Despite the rise in median income, more than 20 percent of the Mescalero Apache families earned less than $1,000 and more than 75 percent received an income of less than $3,000 a year by 1967.

Another positive indicator of success, although still incredibly high, is the drop in unemployment rate from 75 percent of the employable work force in 1959 to 61 percent in 1967. Latest figures and estimates show an even further reduction in the unemployment rate as a result of ski expansion and community center program.

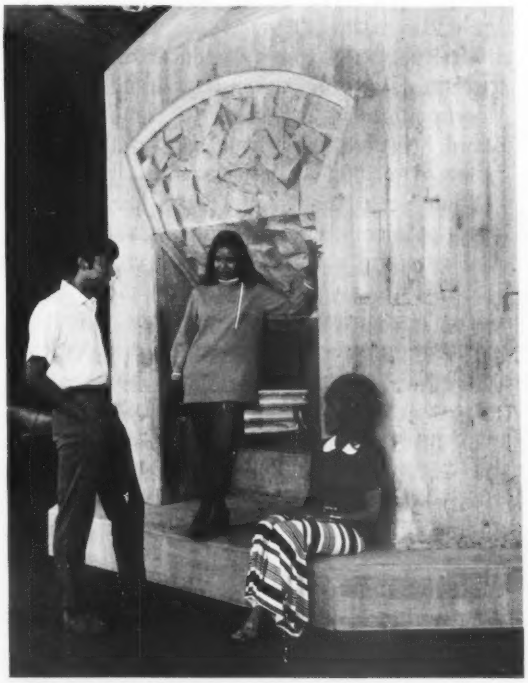
Among the other successful EDA investments in Indian tourism are:

Alabama-Coushatta

In the Big Thicket of Southeast Texas the Indians of the Alabama-Coushatta Reservation have recreated examples of their ancient culture in the development of a tourism complex. A museum reflecting the culture and heritage of the two related tribes and the natural beauty of the area has been constructed.

The Na-Ski-La Dancers give daily performances in the summer on the authentic dance square. A restaurant offers authentic Indian food and the nearby trading post sells locally made arts and crafts. Major attractions are the Big Thicket Tour in four wheel drive vehicles and rides on the "Indian Chief" Railroad. Construction of a dam resulted in a 30 acre lake. Camping, trailer and picnic sites have been developed. Future plans include amphitheatre and museum.

OREGON RESORT—*Employees and guests find the massive lobby fireplace of Kah-Nee-Ta Lodge an inviting spot to gather. The cast concrete fireplace, decorated with intaglio sculpture, dominates the warm hued lobby of the recently opened $5 million resort facility, built with EDA funds, on the Warm Springs Reservation in Oregon.*



WHITE MOUNTAIN—*Fishing, hunting, and winter skiing are among a variety of activities enjoyed at this resort of the White Mountain Apaches.*

An estimated 125,000 tourists visit the reservation annually. The existing program provides nearly 150 part-time and seasonal jobs to tribal members. Planned new construction will enable the tribe to operate year around, developing full time job opportunities. EDA has assisted in development of this complex by providing $495,000 in public works funds.

Southern Ute

In scenic Southwestern Colorado, the Southern Ute Indian Reservation contains some of the finest hunting and fishing in the state. To attract tourists to their reservation, tribal leaders decided to construct a complex outside the town of Ignacio. It includes a motel, restaurant, convention center, arts and crafts center with gift shop and museum.

Local Indian craftsmen work in the center and their products are sold in the gift shop. Ute history can be traced in the museum and authentic Indian dances are performed throughout the summer. The Tribe has hired a manager with experience in this field and 38 tribal members are employed in the complex. EDA provided $550,000 toward the cost of this project.

Crow

With an economic base largely founded on agriculture, the Crow Tribe is seeking to diversify its economy by entering into the tourism field. The Custer Battlefield National Monument, site of Custer's famous "Last Stand," is on the Crow Reservation and draws over 300,000 tourists annually.

Each July, the Crow Tribe reenacts the battle as a tourist attraction. In anticipation of developing a major tourism complex the Tribe's plans include construction of a lodge, restaurant, teepee village, Heritage Village, concessions, grandstand and parking areas. EDA provided $1,450,000 toward this project. Although some of the construction is not completed, the Tribe operates the motel and restaurant under temporary management. An estimated 50 to 70 tribal members will be employed at the complex.

Isleta

Location of the Isleta Pueblo Reservation in New Mexico on Interstate 25—just South of Albuquerque and adjacent to the Rio Grande—led tribal leaders to begin developing major tourism facilities on their reservation. Plans call for a motel, restaurant, golf course, and trailer, camping and picnic facility. The first phase involved construction of fish ponds with adjoining picnic and camping facilities, and a concession building.

EDA put $350,000 into this project which has proved so successful that the Tribe is planning major expansion. The project manager and seven employees are all tribal members.

Hopi

Around 1275 A.D., various clans of Indians began an exodus to the spiritual center of the Hopi ancestral homeland. Old Oraibi, already established and today believed to be the oldest continuously inhabited community in the United States, became the busy scene of the "Gathering of the Clans," according to Oraibi tradition. Today there are 12 villages in unique geographic settings, each displaying the Hopi culture and friendliness.

To accommodate the thousands of visitors to the Hopi Reservation, the tribal leaders built a "Cultural Center" with the assistance of EDA which provided $770,000 toward the total cost. Facilities included a motel, restaurant, craft shops and museum. The motel and restaurant have been leased by a family experienced in this field, using all-Indian employment. Meanwhile, the craft shops are operated by individual tribal members while the Tribe manages the museum.

—Economic Development Administration

INDIANS—*The Santa Clara Pueblo in northern New Mexico perform the Dance of Los Matachines, a ritual based on an Aztec legend.*

Trade Talks With USSR A 'Continuing Process'—New Round Is Readied

Working Groups Preparing Fall Sessions; Secretary Peterson Seeks Enduring Pacts

Several working groups of U.S. and Soviet officials, set up during the recent meeting of the Joint U.S.-USSR Commercial Commission in Moscow, are continuing to exchange papers and define positions in anticipation of a further round of talks this fall in Washington.

These activities are part of a negotiating process whose continuing nature was emphasized by Secretary of Commerce Peter G. Peterson upon his return from the July 20-Aug. 1 sessions. Secretary Peterson is U.S. Chairman of the Commission. USSR Minister of Foreign Trade Nikolai S. Patolichev is the Soviet Chairman.

"Both sides expected intensive negotiations, and I think it fair to say that our expectations were met. Nonetheless, we are heartened by the fact that certain basic principles seem to be accepted by both sides. And I remain confident that we can be successful in working out a comprehensive trade agreement by the end of the year," Secretary Peterson summarized.

He made these comments in presenting to the public his report, "U.S.-Soviet Commercial Relationships In A New Era." The report not only reviewed the developments at the Moscow sessions but offered two sections of text, tables and charts, "A Comparison of the U.S. and Soviet Economies" and "Selected Developments in Recent Soviet Trade." Secretary Peterson underlined the importance of this background material in observing that if progress is to be made in U.S.-Soviet commercial relations "we will need to know more about each other's economies and trading patterns."

The Joint U.S.-USSR Commercial Commission had its inception last May 26, when President Nixon and Soviet General Secretary Leonid Brezhnev agreed to set it up to "promote the development of mutually beneficial commercial relations and related eco-

FROM THE U.S. POINT OF VIEW—*Soviet General Secretary Leonid Brezhnev listens as Commerce Secretary Peterson explains the U.S. objectives in the bilateral trade discussions. To the left of Brezhnev in photo is the USSR Minister of Trade, Nikolai S. Patolichev.*

nomic matters between the two countries."

At its first formal sessions in Moscow, the Commission organized a number of working groups tackling specific issues. One, seeking to prepare a general trade agreement, had sub-groups examining Most-Favored-Nation tariff treatment for Soviet exports to the U.S., the provision of business facilities for U.S. firms in the Soviet Union, and handling of commercial arbitration.

Other working groups dealt with problems of reciprocal granting of credits, settlement of World War II Lend Lease obligations, maritime agreements, joint projects, and the handling of patents, copyrights, licenses and taxes.

In addition to the discussions at the commission sessions, Secretary Peterson had an opportunity for a thorough personal exploration of trade matters with General Secretary Brezhnev.

Secretary Peterson said that the word "process," with its step-by-step implications, best describes the method of work of the Commission.

"We do not seek a single agreement which will write finis to all the problems which confront us. That would be unrealistic," he noted. "What we are after is a comprehensive series of agreements which will plot a 'critical path' through the issues which divide us, tying, where necessary, the solution of one to the solution of another to create a long-term environment in which business can flourish.

"What we expect is steady progress built on a foundation of mutual benefit to both countries. If we succumb to the temptation of instant success in resolving what is clearly a connected set of complex issues, we risk reaching a piecemeal solution which may be a 'negotiating success' today, but will leave us with a series of exacerbating problems tomorrow."

Taking note of political and ideological differences, Secretary Peterson said: "It is most emphatically not our purpose to bargain away the nation's security simply to see our trade statistics rise. Our security is not negotiable. Products and technology in sensitive and proprietary areas will continue to be protected."

Rather, he continued, the purpose of the U.S. negotiators is "to build in both countries a vested economic interest in the maintenance of an harmonious and enduring relationship. A nation's security is affected not only by its adversary's military capabilities but by the price which attends the use of those capabilities. If we can create a situation in which the use of military force would jeopardize a mutually profitable relationship, I think it can be argued that our security will have been enhanced."

Commenting on some apprehensions that the U.S. could become excessively reliant on Soviet sources of supply, he said "it will be a number of years before the dollar volume of our Soviet trade amounts even to a few percent of our total consumption, even in

WITH POLISH LEADER—*During talks in Warsaw, Secretary Peterson was received by Poland's Prime Minister, Piotr Jaroszewicz.*

ACROSS THE TABLE—*Members of the U.S. and Soviet delegations in the Joint U.S.-USSR Commercial Commission face each other across the conference table at one of the July 20-Aug. 1 sessions. A new series of such discussions, to be held in Washington this fall, is now being prepared.*

those raw material and energy areas where we expect our heaviest import concentrations."

Secretary Peterson called attention to the "economic fit" of the trillion dollar U.S. economy and the estimated $570 billion Soviet economy. He said the two nations, "variously blessed and variously developed, are, by their very nature, natural trading partners."

Benefits that would accrue to the U.S. as the new ties reduced political tensions and built up trade levels are seen by Secretary Peterson as:

► "a balance of trade very much in our favor for at least the near term, especially in such areas as machinery and grains."

► "possible access to large Soviet energy and raw material resources."

On the Soviet side, the most important gains would be, in Secretary Peterson's view:

► "the ability to supply their industrial sector with advanced manufacturing equipment and know-how in areas where the U.S. might have a comparative advantage."

► "help in meeting the growing demands of their consumer sector."

► "obtaining capital investment and credits enabling them to harness their undeveloped natural resources wealth."

► "buying grain stocks, which the U.S. has in abundance, to meet their goal of increased meat consumption."

The U.S. delegation also visited Warsaw, where on Aug. 1 and 2 it met with Polish officials. The discussions covered possible increase of Polish exports of industrial products, particularly in the chemical, pharmaceutical, furniture and machinery industries, and expansion of U.S. exports to Poland of machinery and equipment, industrial licenses and know-how. Polish officials told the U.S. group that recent Polish trade missions to the U.S. have initiated a number of inquiries on important sales to Poland of U.S. machinery and technology.

The U.S. delegation in both countries included, in addition to Secretary Peterson, Under Secretary of Commerce James T. Lynn, Assistant Secretary of State Willis C. Armstrong, Deputy Under Secretary of the Treasury Jack F. Bennett, and Assistant Secretary of Commerce Andrew E. Gibson.

CHECKING IT OUT—*Soviet Trade Minister Patolichev tests an American-made airconditioning unit with Secretary Peterson as the two tour the U.S. exhibit area at the Electro 72 trade show in Moscow.*

DOMESTIC BUSINESS REPORT

- **Industry fights pollution on broad front**
- **Median family income surges above $10,000**
- **Construction boom spurs purchases of appliances**
- **New food price rules clarified by IRS**
- **First U.S.-issued picture postal card appears**
- **Successful brokerage firms bring Wall Street to black community**
- **Value proven, ombudsman taking office to the people**

Industry Fights Pollution On Broad Front

At its main consumer electronics base in Indianapolis, RCA is replacing 30-year-old coal fired boilers with smaller, more efficient gas-oil equipment.

Commitment cost

The $1.5 million facility will use low sulfur fuels, permitting the control of sulfur oxide and particulate emissions. The completion date is scheduled for late 1972.

This RCA project is a voluntary commitment, one of hundreds of cleanup actions being compiled by the National Industrial Pollution Control Council for its third volume of Industry Cleanup Actions in Progress which will be presented next month to the President and the Chairman of the Council on Environmental Quality.

Many of the industry commitments update those made a year ago by Council members, others specifically tell of new cleanup projects, and most of the cost of the company environmental program.

"Each of these voluntary improvement projects represents an aspect of a continuing commitment by RCA to pollution control and environmental improvement," Robert W. Sarnoff, chairman and chief executive officer, said in a letter to NIPCC. "During 1972, RCA will have spent or allocated for pollution control, $2,037,500."

The commitments from Southwestern Bell Telephone Co. primarily concern environmental aesthetics—the placing of telephone wire and cable underground, where feasible, and motor vehicle exhaust emissions.

"Our stated objective is to place from 80 to 85 percent of our new facilities underground," A. S. Alston, Southwestern president, stated. "In 1971, we buried 84 percent of our new wire cable plant out of sight. For this year, to date, that figure is 82 percent."

Environmental activities of Montana Power Co. have focused on expanding strip mine land reclamation on the company's coal properties.

J. E. Corette, chairman and chief executive officer of Montana Power, reports that Montana State University Agricultural Experiment Station research as to land preparation and planting has developed processes suitable for wide spread reclamation. Large areas are now being reclaimed and will be maintained with the mining in progress.

Studies' success

Archeological studies continue to be conducted ahead of mining activity, the Montana Power chairman stated. This type of investigation is also being conducted in an area that will become a reservoir at one of Montana Power's hydroelectric projects when the project is completed. These are two of a number of Montana Power's pollution control projects.

"Environmental control measures represent somewhat over 10 percent of our total capital expenditures for this year," reports Herbert S. Richey, president of The Valley Camp Coal Co. of Cleveland, Ohio.

These projects include installing dust enclosure around clean coal conveyor gravity take-up to prevent steam contamination, upgrade dryer stack emission for air pollution control, construct elevated motor oil rack and sump filter to prevent local stream contamination, install dust collection system-rotary dump, crusher, and shaker screen house to control escape of fugitive dust.

Coal projects

Others, undertaken by the Valley Camp Coal Co. include treatment of acid water to prevent stream pollution, continuation of building silt settling ponds to contain drainage from all surface mining operations, completing of coal preparation plant water clarification system, and refinements to eliminate discharge of particulate matter into streams.

"One of the primary concerns today is to insure that our environment is protected from water, air and solid waste pollution," McGraw-Edison Co. of Elgin, Ill., states.

McGraw-Edison's commitment includes a recently completed water cleansing installation at its Toastmaster plant in Centerville, Iowa and a similar installation is now under way in Boonville, Mo.

So successful has been McGraw-Edison's Centerville water purification installation that about 60 percent of the water, used for plating, can now be reused in the plant.

Northern States Power Co. of Minneapolis, Minn., has taken a different approach toward environmental planning and coordination through an Environmental Affairs Department which now has a staff of 16 people.

The purpose of this new department is to make available an open, direct communication channel between the company and citizens groups concerned about the environment.

WATER IS PROCESSED—*In this new $750,000 environmental control facility of Goodyear water is processed through a system of screens, settling basins, pumps and oil skimmers which brings the river water up to state standards at this point where it leaves tire company's major manufacturing complex in Akron, Ohio.*

An outcome of this effort was the formation of a Citizens Advisory Task Force where 26 environmentally-oriented citizens groups became involved in the corporate decision making process in such areas as the identification, selection and development of new sites for electric generation and transmission facilities. The task force participated in the selection of a site for an NSP plant in Sherburne County, Minn., scheduled for operation in 1976-77.

GE reports

The General Electric Co., high among the NIPCC leaders in commitments last year, has continued its long history of investment for pollution control.

Fred J. Borch, GE board chairman, in a letter to Secretary Peterson, reported a $2.3 million power plant improvement program is being undertaken at General Electric's facilities in Erie, Pa. The program expected to be completed by next summer, involves use of low-sulfur coal and installation of electrostatic precipitators.

Air emission control

At General Electric's Lamp Glass Department at Bridgeville, Pa., plant, the installation of air emission control equipment that effectively traps about 96 percent of the particulate matter arising from the plant's manufacture of lead glass.

Total cost of this project was $407,000 and the plan received a special commendation from a citizens Group Against Smog and Pollution.

A major process conversion involving a total investment of $4.5 million is under way at GE's plastics department to eliminate lime wastes from its Lexan production at Mount Vernon, Ind.

These are but a few of the industry commitments that lead the way in one of the costliest cleanups in this Nation's history.

—*National Industrial Pollution Control Council*

Median U.S. Family Income Surges Above $10,000 Mark

In 1971, more than half of the Nation's families had incomes in excess of $10,000 a year for the first time in history. Meanwhile, the number of Americans living below what is statistically classed as the low income level remained essentially unchanged from 1970 to 1971.

This information is included in a report prepared by Commerce's Census Bureau, and is based on estimates made as a result of a sample survey of about 47,000 households conducted in March, 1972.

The report showed that in 1971 the median income of 53.3 million families in the U.S. was $10,290, or 4.2 percent higher than the 1970 median income of $9,870.

However, because of price rises, the 1971 median income was about the same as in 1970 in terms of constant dollars.

Family earnings

In 1971, according to the Census Bureau estimate, 7,674,000 families earned between $12,000 and $14,999, 10,399,000 earned between $15,000 and $24,999, and 2,841,000 earned $25,000 or more.

On the other side of the scale, 9,900,000 families received incomes between $7,000 and $10,000, six million had incomes between $5,000 and $7,000, and 9,800,000 had incomes below $5,000.

In 1971, in cases where the family head worked full time, the median income of the entire family was $12,440.

On an individual basis, the median income for men working year round full time was $9,630. The corresponding figure for women working year round full time was $5,700, or about 59 percent of the income of men. The increase in the median income between 1970 and 1971 was about the same for men and women who worked full time the year round—4.9 percent for men and 4.8 percent for women.

In 1971, for all workers, both full and part time, the median income for men was about $6,900 and that for women $2,410. The increase in the median for men during the year was 3.5 percent, and for women 7.6 percent.

The median income for white families in 1971 was $10,670 and that for Negro families $6,440, or about 60 percent of the white family median. The ratio of the one to the other was not significantly different in 1971 from that in 1970.

The Census Bureau report on low income showed that 25.6 million Americans lived below the low income level in 1971 as compared with 25.4 million persons in 1970.

The statistical dividing line denoting low income had been adjusted upward to account for rises in the Consumer Price Index. That dividing line for a non-farm family of four was adjusted from $3,968 in 1970 to $4,137 in 1971.

Seventy percent of those with low incomes are white and 30 percent are persons of Negro and other races. The 17,800,000 low income whites represented 10 percent of the Nation's white population, and the 7,800,000 low income Negro and other races were 31 percent of the non-white population.

The sex of the family head continued to be a significant factor in the low-income status of families. Families headed by a woman accounted for 40 percent of all families living below the low-income level in 1971, although they represented only 12 percent of all families.

The total number of low-income families did not change between 1970 and 1971. But the proportion of families below the low-income level and headed by a woman increased to the 40 percent level from 37 percent in 1970.

Black families headed by a woman accounted for about three-fifths of all black families in the low-income category. White families headed by a woman represented about one third of all white families in this class.

Earnings up

In 1971, family heads and unrelated persons 65 and over made up 17 percent of all low-income whites, but only 7 percent of the low-income blacks.

The low-income blacks tended to be younger than the low-income whites. In 1971, 52 percent of all low-income blacks were under 18, while 36 percent of all low-income whites were below this age.

The Census Bureau report shows that since 1959, the first year for which measures were made of the U.S. low-income population, there has been a substantial reduction in the number and proportion of Americans with low incomes.

In 1971, the 25.6 million Americans with low incomes were about 12 percent of the population. This contrasted with 39.5 million persons in 1959, or 22 percent of the 1959 population. Thus, the number of low income persons declined from 1959 to 1971 by about 14 million, a 35 percent drop, while the total population increased by about 29 million.

The substantial drop in the low-income population since 1959 reflects both long-term economic trends, which have been raising incomes for many decades, and the special Government programs aimed at helping low-income people.

Copies of "Money Income in 1971 of Families and Persons in the United States," Series P-60, No. 83, is available from the Superintendent of Documents, Government Printing Office, Washington, D. C., 20402, or from Commerce field offices in major cities.

—Census Bureau

Construction Boom Spurs Purchases Of Home Appliances

Summary Housing Characteristics For The United States

(By Inside and Outside Standard Metropolitan Statistical Areas: 1970)

	Total	Year-round housing units (percent)				
		more than 1 bath- room	built 1960 to 1970	5 or more units	air con- dition- ing	3 or more bed- rooms
UNITED STATES						
Total	67,699,084	27.3	25.0	14.5	35.8	48.0
Urban	50,002,480	29.5	24.0	19.1	39.7	45.7
Rural	17,696,604	20.9	27.9	1.5	24.6	54.4
Inside SMSA's	46,082,602	30.4	25.7	19.4	39.2	46.9
In central cities	22,566,060	23.3	18.5	27.6	38.2	37.9
Not in central cities .	23,516,542	37.3	32.7	11.5	40.1	55.5
Outside SMSA's	21,616,482	20.6	23.6	4.1	28.5	50.2

	Total	Occupied housing units (percent)				
		clothes washers	clothes dryer	dish- washer	home food freezer	tele- vision
UNITED STATES						
Total	63,445,192	71.1	41.7	18.9	28.2	95.5
Urban	47,567,372	68.4	41.0	20.4	21.7	95.8
Rural	15,877,820	79.3	43.8	14.1	47.9	94.5
Inside SMSA's	43,858,775	69.0	42.1	21.3	22.8	96.0
In central cities	21,378,708	60.4	31.2	15.4	16.6	94.8
Not in central cities .	22,480,067	77.3	52.5	27.0	28.7	97.2
Outside SMSA's	19,586,417	75.7	40.9	13.3	40.4	94.4

Twenty-five percent of the Nation's housing is less than 10 years old, and a substantial percentage of U.S. households own a vast assortment of modern appliances, a special census study shows.

Much of the new construction occurred in the suburbs, and 4.6 percent of American households owned the ultimate luxury item—a second home.

Utility gas was by far the most popular heating fuel, and most American homes have piped water and sewer systems, the Census Bureau further reported.

Year-around use

The 1970 census found that there are 67.7 million housing units that were built for year-around use. Some 17 million were built since 1960, and nearly half (46 percent) were built within the last 20 years.

The study showed that only 18 percent of housing units inside central cities were built between 1960 and 1970, while in the suburbs the proportion was 33 percent, and in non-metropolitan areas, 24 percent.

Most of the Nation's homes (93 percent) have a bathroom and 27 percent had more than one. Similarly, 82 percent of all homes have at least two bedrooms and 48 percent had three or more.

More than twice as many homes are heated by warm air furnaces (42.5 percent) as by any other type of heating equipment. This compares to 20.4 percent heated by steam or hot water, 11.7 percent by room heaters with flue, 5.8 percent by built-in electric units, and 4.8 percent by fireplaces, stoves or portable heaters. The proportion with no heating equipment was 0.9 percent.

The Nation's homes heated by gas were 55.2 percent of the total, compared to 26.0 percent by fuel oil and kerosene, 7.7 percent by electricity, 6.0 percent by bottled, tank or LP gas, 2.9 percent by coal or coke, 1.3 percent by wood, and 0.4 percent with other fuels.

Less than two percent of American homes have no running water.

Public systems or private companies supplied water to 81.7 percent of homes and 16.4 percent had individual wells. Housing units connected to public sewers were 71.20 percent of the total, 24.5 percent utilized septic tanks or cesspools, and 4.3 percent had other means of sewage disposal.

Housing features

Other characteristics in the report included:

- 95.5 percent had television sets, 66.8 percent having one set and 28.7 percent two or more sets. And, 51.7 percent were equipped to receive UHF broadcasts.
- 71.1 percent had a washing machine.
- 47.7 percent of all households had one automobile available; 29.3 percent had two cars; 5.5 percent, three or more; and 17.5 percent reported none.
- 41.8 percent were equipped with a clothes dryer.
- 35.7 percent were air-conditioned, 17.8 percent with one room unit; 7.2 percent with two or more units; and 10.7 percent with central air conditioning.
- 28.2 percent had home food freezers.
- 18.9 percent had dishwashers.

The report breaks down data by regions, states, metropolitan and nonmetropolitan areas, urban and rural areas, and lists characteristics of housing units with a Negro head of household.

Copies of "Detailed Housing Characteristics for the United States, Regions, Division, and States: 1970," HC (S1)-6, are available for 20 cents from the Superintendent of Documents, Government Printing Office, Washington, D.C., 20402, and Department of Commerce Field Offices in major cities. *—Census Bureau*

Business Questions Lead IRS To Clarify New Food Price Rules

New Price Commission rules on food products are drawing a number of questions from businessmen at all levels of the food industry—wholesalers, retailers and food processing. Some questions and answers prepared by the Internal Revenue Service are:

Q: When did the new regulations expanding coverage of raw agricultural products become effective?

A: June 29, 1972, when the Cost of Living Council regulations were filed with the Federal Register.

Q: Is this a freeze?

A: No, it is not a freeze on prices. The new regulations control prices for certain unprocessed food items, after sale by the producer, in the same manner as prices of other items.

Q: Does this extend controls to the producer?

A: All sales of raw agricultural or raw seafood products by a producer or fisherman are exempt. If a farmer raises and slaughters his own animals, his sales of the meat will be subject to controls just as they have been.

Q: What products will the new regulations affect?

A: The regulations establish controls at the retail and wholesale level over previously exempt, unprocessed agricultural products of the type consumed in their original form. These products include fresh vegetables, fresh fruits, eggs and raw seafood. The regulations do not change the pattern of controls over processed food products.

Q: Are sales of raw agricultural products by a farmer subject to the controls?

A: No. A sale by a farmer of raw agricultural products which he produces or grows is exempt as the first sale.

Q: What does this new regulation do to meat?

A: It makes no change in the controls that have been in effect for meat since the end of the freeze. Controls over meat begin at the time of slaughter. All sales of livestock and live poultry continue to be exempt.

Q: How will this affect seafood?

A: Only the first sale of seafood by a fisherman or a producer remains exempt. All later sales will be subject to controls.

Q: It the sale of chicken subject to price controls?

A: The sale of chicken remains exempt until the first sale after slaughter. This rule has not been change by the new regulations.

Q: What controls will apply to the sale of unprocessed agricultural products of a type sold for ultimate consumption in their original physical form?

A: Sales by retailers or wholesalers will be controlled under the retailer and wholesaler regulations of the Price Commission. Sellers will be subject to the profit margin and customary initial percentage markup rules as well as the rules requiring base price information and posting for sales of food.

Q: If a wholesaler buys live lobster from a fisherman, and sells it to a restaurant, is the sale by the wholesaler exempt?

A: No. The sale by the wholesaler is the second sale, and is subject to the controls.

Q: What is a "first sale?"

A: A "first sale" is a sale by the producer or grower of the raw agricultural products.

Q: Does the "first sale" mean the first sale after the new regulations become effective?

A: No. The first sale means the sale by the grower or producer of the raw agricultural products.

Q: If a farmer's selling cooperative sells raw agricultural products of the type sold for ultimate consumption in their original physical form, are the prices subject to the controls?

A: No, because the sale by the cooperative is the first sale.

Q: If a roadside stand sells eggs, lettuce, tomatoes, and other similar raw agricultural products of the type sold for ultimate consumption in their original form, are the sales exempt?

A: If the stand is operated by the farmer, who grow or produces the products, they are exempt as the "first sale." They may also be exempt as small business.

Q: Under the special rule of Sec. 101.32(a), the agricultural products must be of a type sold for ultimate consumption in their original form. Assume that egg farmers sell their product to a dairy not for resale but for use in the making of ice cream. Is the sale to the dairy exempt?

A: Yes. If the product being sold is one which is of a type sold for ultimate consumption in its original physical form, then the first sale is exempt regardless of what the buyer intends to do with it.

Q: Are distributors who purchase and resell agricultural products of a type sold for ultimate consumption in their original physical form controlled?

A: Yes. Only the first sale by the producer or grower of those agricultural products which are a type sold for ultimate consumption in their original physical form is exempt. All sales after the first sale by the producer or grower are controlled. The distributor is not a producer, nor is his sale the first sale. Therefore, his sales are not exempt.

Q: What is a "processed" product?

A: A canned, frozen, slaughtered, or milled product, or a product which is otherwise changed in physical form, is a "processed" product.

Q: Is a dead fish a "processed" fish, subject to the controls?

A: No. Special rules apply to seafood. The first sale of raw seafood is exempt. Raw seafood includes seafood products that have been shelled, shucked, iced, eviscerated, or decapitated.

Q: A firm processes raw agricultural products such as apples for use in canned or frozen goods. The apple cores and skins are left after processing and sold to another firm and are processed into other products. Are the residual materials exempt?

A: No. Residual materials, such as apple cores and skins, left after processing of raw agricultural products are themselves processed products. Such residual materials are not raw agricultural products.

Q: What effect does this change in coverage of raw agricultural products have on the small business exemption?

A: None. If a firm which sells non-exempt raw agricultural products qualifies for the small business exemption, it is exempt from controls.

Q: When must a person comply with the controls?

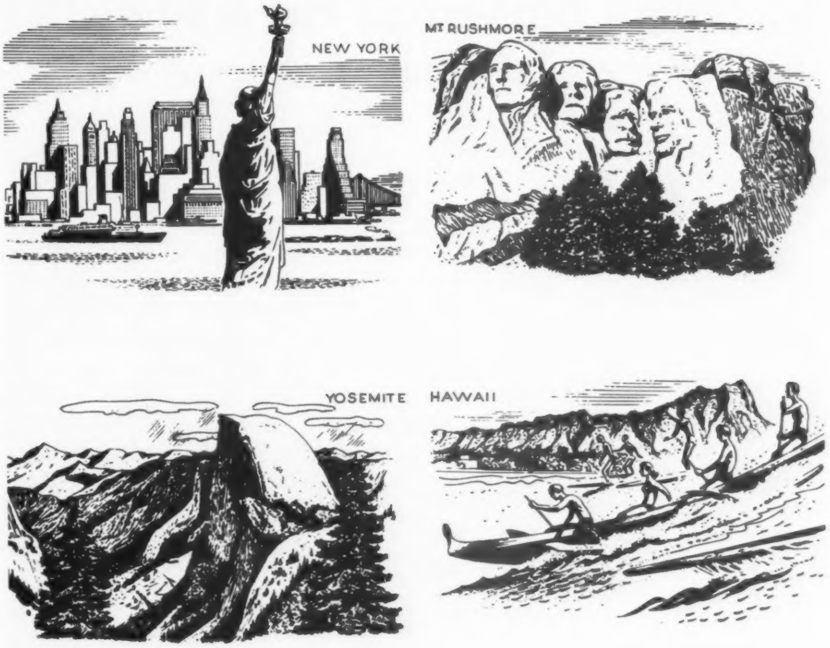
A: The Price Commission has issued a notice giving wholesalers and retailers of such products until July 16 to comply.

Q: How does coverage extend to the integrated producer, for example, the dairy which processes and sells milk from its own herds?

A: The sales of an integrated producer are regulated in the same manner as before. Products sold by an integrated producer are processed and subject to controls.

Q: If a conglomerate has among its subsidiaries both producers and wholesalers of raw agricultural products, should the entire group be considered one entity for purposes of the special rule of Sec. 101.32(a)?

A: No. The exemption provided by Sec. 101.32(a) applies to raw agricultural products and does not relate to the business entity involved. Therefore if some of the subsidiaries are making the first sale of the raw agricultural products, those sales are exempt.



POSTAL CARD FACES—*Twenty famous and familiar American scenes are shown on the first picture Postal cards issued by the U.S. Government. A sampling includes the skyline of New York (upper left) and famous faces of Mt. Rushmore (upper right), a National park, Yosimite (lower left), and the surf of Hawaii.*

First U.S.-Issued Picture Postal Cards Aim To Attract Tourist Dollars

Popular U.S. tourist attractions are featured on picture postal cards issued by the U.S. Postal Service to commemorate this country's participation in Tourism Year of the Americas 72.

Promote tourism

Tourism Year of the Americas 72, sponsored by the Organization of American States, has as its goal increased tourism (and, therefore, increased circulation of tourist dollars) to and throughout the Western hemisphere.

The picture cards, the first issued by the U.S. government, each carry reproductions of four scenes that are among the most popular domestic tourist destinations — a total of 20 scenes. The five indicia, imprinted postal card stamps, are also tourist sites. The cards were issued as a result of a request by the United States Travel Service, the national government tourist office.

Forty million six cent cards for domestic surface use were printed, along with 10 million nine cent cards for domestic air mail, and five million of the 15 cent variety for international air mail beyond Canada and Mexico.

Three of the cards are six cent, one is nine cent and one is 15 cent. The cards may be purchased at any post office, singly or in sets which are packaged in a specially designed envelope.

The cards are larger than the conventional size, being 6 x 4.25 inches, printed on beige stock with black and orange artwork. The designs are by the noted illustrator Melbourne Brindle of Bridgewater, Conn.

—United States Travel Service

Successful Brokerage Firms Bring Wall Street To Black Community

Wall Street is making inroads into the black business community with active and successful brokerage offices. First, in Harlem. Now, Los Angeles.

Marx L. Cazenave II and E. L. Doheny IV came from opposite ends of the social spectrum to open the first minority institutional brokerage office outside New York City.

The office in the heart of Los Angeles' black financial district, is one of 20 maintained by Mitchum, Jones and Templeton, Inc., the largest regional investment securities firm in the West.

Success strategy

"We did a marketing survey to prove to Mitchum, Jones that a brokerage firm in the ghetto could work, and we've been proved right," said Doheny, the white partner and fourth generation Californian. The business has been in operation more than a year.

Cazenave, the black partner who grew up in the neighborhood where the brokerage office is located, expresses the opinion that "you can't improve ghetto economic conditions unless you have the establishment involved."

"It was a case of having to introduce a whole new element into the black community," said Cazenave. "The brokerage business was totally absent in the Los Angeles ghetto, just as it is in nearly every black community in America."

Doheny and Cazenave decided the way to support their ghetto office was to enlist the support of such financial institutions as pension funds and banks because these institutions are constantly buying and selling stocks for their portfolios, and paying commission dollars in these transactions.

Today, their clients include more than 30 financial institutions which manage some $20 billion.

With their office firmly established Cazenave and Doheny now can devote more time to other goals. Foremost among these is hiring more brokers from the minority communities of Los Angeles, including Mexican-Americans and blacks.

They are speaking to black audiences—students, civic groups, and others—in the vicinity of their office, explaining the securities industry and pointing out its importance to the minority community.

They are also working on an educational film to be shown to students across the country. Still, another plan is to make available a scholarship in finance to a minority student.

"This alone isn't going to solve all of the problems in the black communities of this country," Cazenave says, "But we feel we're making a significant and very important contribution in this area."

Harlem first

Wall Street came to Harlem in July 1969, when Russell Goings persuaded Shearson Hammill and Co. to open a branch office of its brokerage house there. Shearson Hammill sold its Harlem office in 1970 to Goings, who had formed the First Harlem Securities Corp. In October 1971, First Harlem became the second black-owned brokerage firm to gain a seat on the New York Stock Exchange.

The first black-owned brokerage firm admitted to the Exchange was Daniels and Bell, Inc., which gained a seat in June 1971.

—Office of Minority Business Enterprise

ON EXCHANGE FLOOR—*At work on the floor of the Pacific Coast Stock Exchange in Los Angeles are (from left) Marx L. Cazenave II, E. L. Doheny IV and Michael M. Herbs. Cazenave and Doheny are partners in the firm.*

More Minorities Expand Business With SBA Help

"Minority entrepreneurs opening businesses or expanding existing firms found meaningful economic action through the Small Business Administration during fiscal 1972," according to SBA Administrator Thomas S. Kleppe.

Record increase

Business loan approvals to minorities at the conclusion of fiscal 1972 had increased 16 percent in number from 7,776 to 9,016, the SBA administrator pointed out, "and 21 percent in dollars, from $214 million to $258 million over fiscal 1971."

SBA currently has licensed 50 Minority Enterprise Small Business Investment Companies, showing an aggregate private capitalization of more than $16 million. These firms, which invest solely in minority business enterprises, have the potential of making capital in excess of $200 million available for investment in minority businesses.

Kleppe noted further that legislation proposed by President Nixon to encourage and broaden investment of private sector funds into MESBICs would also give statutory definition to MESBICs, reduce the level of private capital required to qualify for $3 to $1 assistance from SBA, permit MESBICs to be organized as non-profit corporations and allow banks to own 100 percent of a MESBIC.

Government contracts awarded minority firms under SBA's procurement program exceeded the target goal of $100 million by almost 50 percent. During the year, SBA awarded 1,714 contracts totaling $149.4 million, more than double the number of contracts and contract dollars awarded in fiscal 1971.

RECORD SET—*Awarding of contracts to two Los Angeles firms pushed SBA 8(a) contracts to minorities to a record high of $149.4 million. At a special ceremony are (seated from left) Robert Finch, Counselor to the President; William Alexander, president of California Golden Oak Products which received a $1,020,925 contract; Manuel Caldera, president of Amex Civil Systems, which received a $600,000 contract. Standing from left are Arthur McZier, SBA Assistant Administrator, Minority Enterprise; Marshall J. Parker, SBA Associate Administrator, Procurement and Management Assistance; Arthur Sampson, General Services Administration head.*

SBA is authorized by Section 8A of the Small Business Act to serve as prime contractor for goods and services being acquired by Federal procurement agencies. It then subcontracts these orders to disadvantaged small businesses.

Upgrading firms

Further, the 8A program is a vehicle for upgrading firms so they will graduate as successful competitors for the Nation's purchasing dollars in both the private and public sector.

Nearly 22,000 minority entrepreneurs attended management courses, workshops, conferences and clinics cosponsored by SBA during fiscal 1972.

Minority firms received $2.9 million of the $3.3 million total allotment to the SBA program which provides management and technical resources.

Additionally, SBA maintained 110 Minority Enterprise Representatives in the field last year. These specialists pinpoint needs of potential minority entrepreneurs and help make SBA's goal of equality of opportunity in the free enterprise system a reality.

Moreover, community development projects funded through programs of the Small Business Administration created 17,356 jobs in fiscal 1972.

The figure represents a 36 percent increase over the previous year and brings the total number of jobs created as a result of SBA's 502 community development program to 194,000 since its inception in 1959.

In June alone, the final month of the fiscal year, 4,201 jobs were created. Employment opportunities

—Small Business Administration

Its Value Proven, Ombudsman Taking Office To The People

It may be hard to understand how a golf cart, a waste disposal prototype, a hospital, a state agency, a leading American corporation and an educational foundation could all meet on a common ground.

But recently they did. Their common bond was that each had a problem which only the Federal Government could solve.

Common interest

They had one thing else in common — the people involved with these problems knew whom to contact in the Nation's Capital to give them the fastest assistance: the Commerce Department's Ombudsman for Business.

The office of the Ombudsman was created in the Commerce Department 18 months ago to help make the government more responsive to business and any other in need of the service. The office exists to improve communication and understanding between the government and the private sector and to speed up answers to their problems.

Thomas E. Drumm, the Federal Ombudsman, is a specialist with scissors that cut through governmental red tape, and is proving the office to be an effective tool for giving help to the business community, local and state governments, and the public.

The list of those using the service include small, medium and large firms (a substantial number of Fortune's 500), members of Congress, manufacturers and trade associations, Chambers of Commerce, other trade related organizations, professional societies, Washington representatives of manufacturing and other business firms, attorneys, accountants, colleges and universities, minority entrepreneurs, Federal Government agencies, economic and industrial development commissions, entities of state and local governments, and others.

The problem of the golf carts concerned an excise tax that is levied on an American manufacturer exporting his goods to a U.S. territory. . . . The owners of the prototype of a large scale waste disposal machine needed guidance on how to obtain financing for production of the unit and information on marketing ideas. . . . The hospital officials were looking for assistance from the Government on a major expansion program. . . . The state agency needed information on a suitable site for storage, burial or other disposal of industrial waste. . . . The leading American corporation was looking for data on population, markets, personal income and trends and other statistics relative to a site survey for a new division of that business. And the educational foundation was seeking assistance on obtaining educational grants from the Government.

Volume above 5,000

This is just a sampling. To date more than 5,000 cases have been handled by the Ombudsman's office and the number contacting this office for help rises each month.

Drumm points out that a larger number of businesses are seeking marketing information each month, with emphasis on international markets. He also notes that there is always an interest in how to sell to the biggest customer in the world—the U.S. Government.

Through one problem that still remains unsolved (an American association of one of the largest and most respected United States organizations, has approached the Ombudsman looking for an American company with the capability of building a particular product needed by an overseas manufacturer), the Ombudsman learned of another which is solved.

This American association and its more than 34 other offices located outside the U.S., all around the world, were not included in the public distribution of governmental materials affecting business and its operation.

"These U.S. subsidiaries, even though they are out at the end of the line, were actually uninformed," the Ombudsman said. The information has now been disseminated and is helping where it may be needed most.

In September, the Ombudsman is taking the Government to the people. Together with the Illinois Manufacturers' Association, the Ombudsman's office is planning a Business Forum to be held Sept. 14 in Chicago.

Six Federal agencies will have top officials representing them at this seminar. More than 500 local businessmen are expected to attend to learn how they can use the services of the U.S. Government. The morning session will be devoted to program explanations; the afternoon session will give the attendees the opportunity to ask the Government experts any questions they may have.

Thomas E. Drumm
Ombudsman For Business

The Ombudsman hopes this will be only the first of such business forums, where the "Government of the People, for the people is actually taken TO the people in their own locale."

Program participants

John D. Gray, chairman of the board of Hart, Schaffner, and Marx and president of the Illinois Manufacturers Association, will keynote the one-day business conference. Included in the program will be Basil J. Mezines, executive director of the Federal Trade Commission; Gerald F. Scanell, director of standards, Occupational Safety and Health Administration; Anthony S. Chase, deputy administrator of the Small Business Administration; Luther Holcomb, vice chairman, Equal Employment Opportunity Commission; Ben Burdetsky, Deputy Commissioner, Bureau of Labor Statistics, and Gerald Marks, director, Department of Commerce Chicago Field Office.

Drumm will deliver the luncheon address on the services of the office of the Ombudsman, the Department of Commerce and additional government programs in which the business public has a high level of interest and concern.

The Ombudsman's office receives liaison assistance from offices set up to work with him in 16 other federal agencies. In addition, the 42 field offices of the Commerce Department and regional and district offices of other departments and agencies cooperate closely and provide on-the-spot service locally at the request of the Ombudsman.

That it's a success is proved by the increasing number of businesses and others calling on this office for assistance.

Nationwide acclaim has also been given the Ombudsman this year. Together with Virginia Knauer, special assistant to the President for Consumer Affairs, and Bess Myerson, Commissioner of Consumer Affairs, Thomas E. Drumm, Ombudsman for Business, was awarded the 1972 California radio station KABC's Distinguished Achievement Award for outstanding service to America.

The award states that Drumm "has immeasurably improved communication between businessmen and government, has successfully assisted businessmen by providing them with knowledge of opportunities and rights accorded them by government programs established for their benefit, and further, has provided outstanding service to all Americans by helping to resolve legitimate complaints about government activities related to business."

U.S. Shipyards Turned Out Vessels Totaling 800,000 Tons During Fiscal 1972

American shipyards delivered 15 new vessels and 14 conversions totaling almost 800,000 tons, in the year that ended July 1, 1972, according to the Maritime Administration.

The Merchant Marine Data Sheet showed the U.S. merchant fleet consisted of 1,233 vessels of 1,000 gross tons or more on July 1, 1972.

Of the 1,233 ships in the fleet, 659 were owned by private companies, with the remaining 574 in the Maritime Administration-owned fleet, which primarily consists of World War II ships in the National Defense Reserve Fleet.

As of July 1, there were 68 ships, amassing more than 3.7 million deadweight tons, under construction in or on order from American shipyards. An additional 13 vessels were undergoing conversion at that time.

The privately-owned fleet showed a net decline of 13 ships during the month of June. One new ship was delivered for private account during the month, nine were transferred to the Government, and two sold for scrap.

—Maritime Administration

There's Money In Raising Catfish, Commerce Says

Catfish, like humans, thrive best in uncrowded, pollution-free environments, according to a study made for Commerce's Economic Development Administration.

"Factors Affecting Growth and Production of Catfish in Raceway" gives results of research undertaken as part of President Nixon's program to help small scale farmers diversify and gain greater returns for their labors.

Experiments were conducted in the Interior Department's Bureau of Sport Fisheries and Wildlife laboratory at Stuttgart, Ark., in cooperation with Commerce's National Marine Fisheries. It was found that feed efficiency and weight gain rate improved when water circulation was speeded up. Feed efficiency dropped when ponds were overcrowded. Total food consumption and weight gain fell when temperatures of the water were above 88 degrees.

Copies of the report are available for $3 from National Technical Information Service, Springfield, Va., 22151. The order number is Com-72-10588. *—EDA*

...And Clams Too!

Establishment of a clam-processing plant on the Quinault Indian Reservation in the state of Washington is expected to strengthen the market for the area's tasty razor clams, and create 25 new jobs for members of the tribe.

Commerce's Economic Development Administration recently approved a $130,000 loan and grants totaling $296,000 to enlarge the Taholah water and sewer systems and establish the clam plant.

—Economic Development Administration

SBIC Employees, Officers Now Eligible To Receive Qualified Stock Options

The Securities and Exchange Commission has ruled that Small Business Investment Companies (SBICs) may issue qualified stock options to employees and officers.

Thomas S. Kleppe, Administrator of the Small Business Administration, said the action climaxes a four-year wait by SBICs to gain exemption from the 1940 Investment Company Act to issue shares for option to employees and officers.

SBA regulations provide that options are exercisable by individuals during time of employment or up to three months after leaving the company; up to 7.5 percent of outstanding stock may be issued for option; employees and officers may receive options up to two thirds of the total number of shares of each class of stock; and an individual may receive options to purchase up to 35 percent of the aggregate number of shares of each class of stock.

Options must conform to Section 422 of the Internal Revenue Code which provides they cannot be issued for less than 100 percent of fair market value at the time of grant; cannot be granted to any person owning more than 10 percent of the stock of a company with net worth of up to $1 million, or who owns 5 percent of the stock of a company with net worth of more than $2 million, and must be exercised within five years of grant and held for at least two years to receive favored tax treatment.

Water Pollution Items To Be Shown

The Nation's first Industrial Water and Pollution Conference and Exposition will be held March 14-16, 1973, at Chicago's Conrad Hilton Hotel, under the sponsorship of the Water and Wastewater Equipment Manufacturers Association.

"There is a tremendous need for this kind of conference," said Thomas H. Bell of Armco Steel Corp., WWEMA president. "We expect between four and five thousand will attend and at least 150 companies will display their products and technology for solving industrial water problems."

"Industrial expenditures for water supply and wastewater treatment probably will approach 40 percent of the total in 1972," Bell said, "The consulting engineers are becoming deeply involved and almost every company of any size now has its water specialist. These men need a technical conference and exposition specifically devoted to their problems."

The American Water Works Association and the Water Pollution Control Federation have been invited to assist in planning of the technical sessions of the conference, which will differ from other water conferences in two respects. It will deal only with water and wastewater problems of industry and will combine water supply and wastewater treatment into a single technical conference and exposition.

Almost Three Quarters Of Young Adults Have High School Diplomas

Almost three-fourths of the Nation's young adults have received high school diplomas compared to about half for those over 25 years old.

A new report, based on the 1970 census, shows that 73 percent of persons aged 18 to 24 have finished high school. The proportion for those over 25 is 52 percent.

The Census Bureau report shows that the median number of years completed for all persons 25 and over was 12.1 years in 1970 compared with 10.6 years in 1960 and 9.3 years in 1950.

Of approximately 110 million persons over the age of 25 in 1970, only 5 percent had less than five years of schooling; 23 percent had five to eight years; and about 20 percent had more than nine years of schooling but had not finished high school; about 41 percent had diplomas; and another 11 percent had completed four years or more of college.

There were 58.6 million persons, age three to 34, who were enrolled in school in 1970, and 823,000 persons over 35 were attending school.

Business Calendar

Sept. 7-10—Window Rock, Ariz.— Navajo Trail Fair.

Sept. 22—Miami—Minority Enterprise Federal Procurement Conference. For information, Luis Encinas, Office of Minority Business Enterprise, Department of Commerce, Washington, D. C., 20230. Phone: 202-967-3936.

Sept. 28-29—St. Paul, Minn.—Minnesota Economic Development Conference, sponsored by Minnesota Department of Economic Development in cooperation with Minnesota Association of Commerce and Industry, St. Paul Port Authority, St. Paul and Minneapolis Chambers of Commerce. For information call Louis Benepe, Conference Coordinator. Phone: 612-296-3981.

Oct. 3 — Dallas — Minority Enterprise Federal Procurement Conference. For information, Luis Encinas, Office of Minority Business Enterprise, Department of Commerce, Washington, D. C., 20230. Phone: 202-967-3936.

Oct. 17—Atlanta—Minority Enterprise Federal Procurement Conference. For information, Luis Encinas, Office of Minority Business Enterprise, Department of Commerce, Washington, D. C., 20230. Phone: 202-967-3936.

SCIENCE & TECHNOLOGY REPORT

- **Science may prove able to defer lightning**
- **Radiation standards to improve nuclear plant monitoring**
- **Air cushion rail service along east coast proposed**
- **Lobster policy planners join to avoid depleting stock**
- **Designers see new building heights a social problem**
- **Patents of special interest**

Tests To Help Design Child-Safe Products

Manufacturers will have a scientific basis for designing products that will be tamper-proof and self-injury-proof as far as children are concerned following a series of experiments currently under way at Commerce's National Bureau of Standards.

Five sensitive and sophisticated devices have been developed at Standards to measure the strength of children. Two are for gauging the twist forces that children can exert. The third is a squeeze device for measuring grip strength. The fourth is a push-pull tester. Another is a pull-apart device.

While children may know their own strength, the makers of toys, games, children's furniture and other juvenile items need reliable scientific data for materials and designs that can cope with the well-known genius of children for getting into trouble even when innocently at play.

The same goes for manufacturers of products that are not meant for children's unsupervised use. These include aspirin, insecticides, bleaches, detergents, soaps, cleaners, furniture polish, kerosene, vitamins, disinfectants, deodorizers, lye, corrosives, and pharmaceuticals.

Thousands hurt

For lack of appropriate standards, thousands of children each year are hurt, maimed, poisoned or killed because products are not sufficiently "fail-safe." As the nation's central advanced-research and precise-measurement laboratory, the National Bureau of Standards draws on experience and skills that can contribute to voluntary and legal standards for solving the problem plaguing parents.

Bureau of Product Safety officials in the Department of Health, Education and Welfare's Food and Drug Administration are charged by law with finding preventives to keep children out of dangerous misadventures. The National Bureau of Standards provides technical assistance to FDA.

In a realistic approach to the problem, Standards' engineers and a psychologist, in cooperation with the National Institutes of Health child behavior specialists, are working with nursery school teachers and children of various social and ethnic backgrounds and neighborhoods.

Significant data are emerging from these initial tests with children from ages two to six. It takes about three days to test a group of about 50 children on the five Standards' devices. The testing instruments feed information into recorders from which analytical data are subsequently obtained.

The objectives at this stage are to measure the maximum forces that children exert in each type of manipulation and to determine the effect of knob size and position on twist forces.

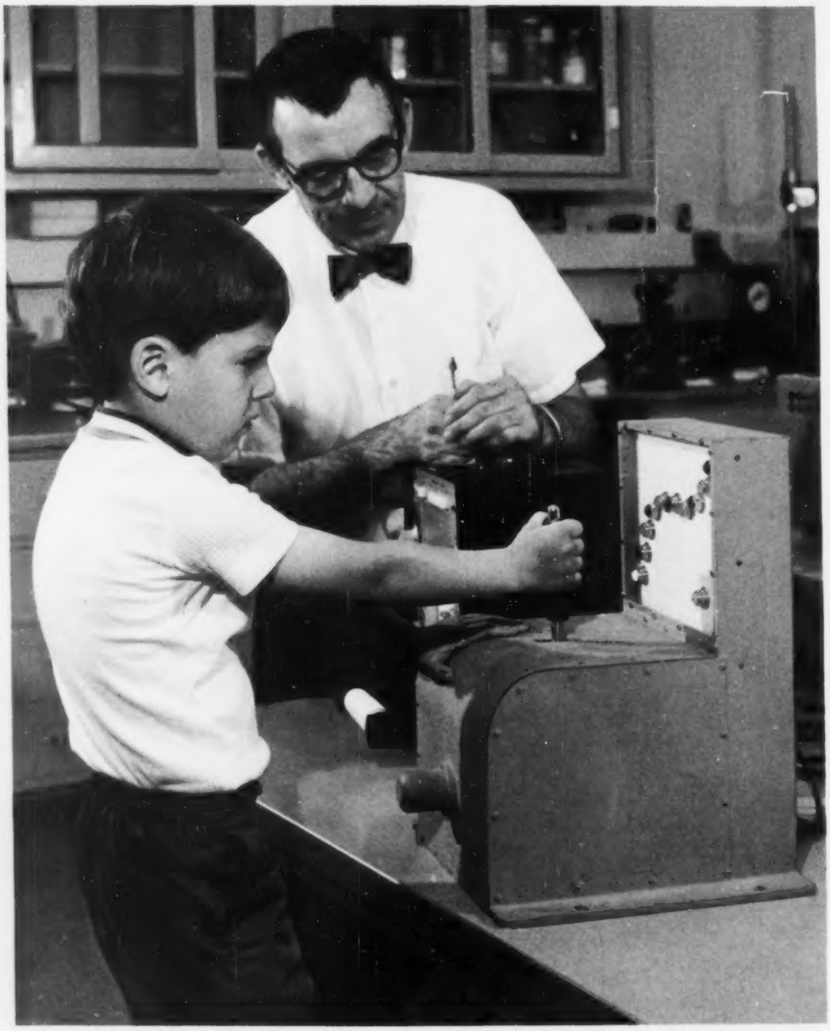
Plans call for followup studies. Children in the two-to-six-year-old group will be re-tested a year later to see whether, as three-to-seven-year-olds they have become appreciably stronger. The researchers may also work with babies under the age of two; here, the key will be to find ways to motivate infants to give their all in tug-of-war-type exercises.

These and related experiments should point the way to development of safer playthings and other products that will be designed on principles drawing a valid strength-and-dexterity line between the capabilities of children in various age groups and adults.

The current research is in a sense a reversal of the picnic-cooler problem that occupied the Bureau's attention a couple of years ago. In that situation, the containers and their latching devices were too strong, the children too weak. Engineers cooperated with manufacturers in developing standards for redesigned coolers that would keep the kids out or enable them to escape if they were trapped inside.

The Bureau of Standards brings to this problem of children and dangerous products an expertise growing out of more than two decades of experience. In the 1950s the Bureau participated in classic studies of young children's behavior under conditions simulating entrapment in refrigerators and subsequently developed standards for refrigerator door closures. Now all refrigerator doors are magnetic, which children can open from the inside.

—*National Bureau of Standards*



A LITTLE BODY ENGLISH—*Five-year-old Paul Calvano, son of a National Bureau of Standards employee, uses a little body english in a strength test which measures the maximum force he can exert. Samuel Toner of NBS' Product Evaluation Technology Division supervises the test which should help design of safer products.*

Science May Prove Able To Defer Lightning To Better Control Fires

Man may one day be able to defer naturally caused forest fires from periods of extreme hazard to periods when fires can be controlled more easily if a program to suppress lightning by seeding thunderstorms proves possible.

Scientists of Commerce's National Oceanic and Atmospheric Administration are attempting to suppress lightning by seeding storms with fine aluminized fibers over a 200-square-mile area of northeastern Colorado this summer.

The six-week experiment represents the resumption of a 1965-66 lightning suppression study performed near Flagstaff, Arizona, by NOAA's Atmospheric Physics and Chemistry Laboratory at Boulder, Colo.

This year's study will again be directed by the laboratory's Dr. Heinz Kasemir who points out that scientists expect to obtain "very accurate results this summer since we have developed a ground network that will record the strength of the field and the location of each lightning stroke within a 50-mile radius."

Lightning is the instantaneous electrical discharge between two oppositely charged storm areas. However, before lightning can occur, the electric field in a thunderstorm must approach 500,000 volts per meter.

'Corona discharge'

Kasemir and five other NOAA scientists will attempt to suppress lightning by preventing the storm's electric field from reaching lightning strength. To do this, they will utilize a phenomenon known as "corona discharge."

If an electrically-conductive pointed object is introduced into a strong electrical field, like that of a thunderstorm, it will develop a positive and negative pole. Electrically charged particles, called ions, then escape from the pointed pole of the same charge. The resulting streams of ions, frequently visible as a faint glow on airplane wing tips, ship masts and tree tops, increase the electrical conductivity of the atmosphere.

Because air is an insulator, very little electricity passes between oppositely charged areas until the field builds enough strength to overcome the insulating effect; then a lightning bolt occurs. The corona effect, however, should make the air more conductive and the electric charge should continuously bleed away, obviating the strong field build-up.

Drop nylon chaff

Using this principle, NOAA scientists drop chaff, aluminized nylon fibers 10 centimeters long, in the region of the storm's electrical field, thus increasing atmospheric conductivity, which in turn should neutralize the storm's electric field and suppress lightning. In the experiment, the corona effect is not visible from the ground.

As thunderstorms develop or move into the test area, Kasemir and his co-workers board a B-26 aircraft equipped with two chaff dispensers and instruments to measure electric field strength. Flying below cloud level, the NOAA scientists wait until their instruments register a field greater than 30,000 volts per meter, a magnitude at which corona discharge will occur. The chaff dispensers are then activated, and the threadlike fibers are carried into the clouds by updrafts in the storm's circulation. On one such seeding mission near Flagstaff in 1965, a 300,000-volt-per-meter field was completely neutralized in ten minutes.

If lightning could be totally suppressed there would be 70 percent less western forest fires, according to Alan R. Taylor of the Northern Forest Fire Laboratory at Missoula, Montana. *—NOAA*

Radiation Standards To Improve Monitoring At Nuclear Facilities

Environmental monitoring of radioactivity at nuclear facilities across the U.S. should be more accurate because of a new program under way at Commerce's National Bureau of Standards.

Three new radioactivity standards have been issued by the Bureau as part of a major effort to help state health and safety laboratories and nuclear facilities improve their capabilities for measuring radioactive pollutants, which may find their way into the atmosphere or lakes and rivers.

NBS produces a host of national standards against which pollutants, materials and other products may be measured. Standard Reference Materials are available to testing laboratories, industry, or other groups that need a high degree of accuracy and assurance of national uniformity. The new radiation standards were produced as part of the standard reference program at the request and support of the U.S. Atomic Energy Commission.

Radioactive waste

The standards are known as Mixed Radionuclide Gamma-Ray Emission-Rate Standards SRM-4242, SRM-4243, and SRM-4244.

These standards were prepared in the NBS Center for Radiation Research. One is intended for use in the assay of radioactive waste water, another is in the assay of primary coolant for light water reactors. Radioactive off-gases can be assayed using the third as a mock gas standard. Empty reusable standard bottles with ground glass caps may also be purchased with the standards for an additional charge.

These standards may be purchased from the Office of Standard Reference Materials, Room B314, Chemistry Building, National Bureau of Standards, Washington, D.C. 20234. Cost of the three radi-

PREPARING A STANDARD—*While preparing mixed radionuclide standard reference materials, Dr. Bert M. Coursey, of the National Bureau of Standards Center for Radiation Research, transfers an aliquot of the master radioactive solution to a sample bottle containing acid. New standards should help plants monitor radiation.*

ation standards is $50 each. The empty bottles may be purchased with the standards for $10 each.

Three older Standard Reference Materials are also available for use in the measurement of environmental tritium. These include two tritiated water standards and one tritiated toluene standard.

—*National Bureau of Standards*

Air Cushion Rail Service Proposed For 1980s By Analysts' Report

Upgrading present rail service between Washington and Boston during this decade and consideration of air cushioned vehicles for the same route in the following decade is part of a plan for the Northeast Corridor advanced by a team of analysts at Commerce's National Bureau of Standards. The plan has been sent to the Department of Transportation at its request.

Systems analysts of Standards' Institute for Applied Technology have come up with a series of recommendations which together with other requested reports are to be used by Transportation in making decisions affecting transportation policy for the 1970s and 1980s.

The Northeast Corridor is a 500-mile-long strip of land along the Atlantic coast from southern New Hampshire to Norfolk, Va., consisting of about two percent of the nation's land and peopled by a fifth of its population. It is estimated that by 1985 the Corridor's population will have increased 25 percent.

More commuters

This population growth and the appearance of new communities will produce more commuting and pleasure travel and an increased flow of commerce. To accommodate this growth the capacity of the travel modes available will have to be increased and possibly whole new transportation systems created.

Anticipating the increased demands for service, Commerce created the Northeast Corridor Transportation Project in 1965 and assigned the Bureau of Standards to evaluate future transportation needs. The project was transferred to the Department of Transportation when it was formed in 1967 and the reports from the studying agencies were compiled in December 1969. These reports analyzed various present and planned travel modes in the corridor; still needed was the formulation of a policy recommendation by the DOT. The NBS Technical Analysis Division was asked to assist in developing recommendations for high-speed ground transportation.

Passenger volumes

The NBS analysts first considered the costs and effectiveness of several proposals for upgrading and augmenting present Washington-to-Boston rail service by estimating direct operating costs (energy, crew, and vehicle maintenance), indirect costs, and system investment costs. Next, passenger volumes were estimated for each proposed system and for use as reference points in estimating future demand.

Evaluation of alternative systems was based mainly on the simultaneous consideration of engineering costs and projected revenues. Other relevant factors are present and future fares, the economic longevity of the system, and the prospect of reduced traffic as competing advanced systems are completed. All of these factors were considered in appraising the systems and in selecting the optimum alternatives for use in the 1970s and 1980s.

The level of financial support needed for updating an old system or building a new one was known in each case, but the problem of obtaining it could not be solved. Determining the likelihood of obtaining private financing would require an extended study of markets and investment risks. Therefore, it was assumed that public capital would be required for at least the short term (to 1980) improvements.

The analysts first concluded that the best way of increasing rail capacity from Washington to Boston would be to upgrade the right-of-way and improve equipment for the existing service. Travel times would be expected to be approximately two hours for the Washington-to-New York run as opposed to three hours on today's Metroliner service and two and three-quarter hours for the New York-to-Boston trip. That run is now scheduled for about four hours on the new jet-powered Turbotrain.

Improved service

Capital required would be approximately $290 million for right-of-way improvements, $70 million for terminal improvements, and $100 million for vehicle construction. Implementing this program would almost immediately result in improved service in the opinion of the analysts.

The Standards analysts also recommended that work should be started on plans for a new system, one not necessarily like present ones, and that a definite commitment be made by the late 1970s. It was recommended that a system using tracked air cushion vehicles be considered for this phase of the program.

The NBS analysis actually covers only a portion of the transportation considerations in the Northeast Corridor. NBS recommendations for high-speed ground transportation will have to be consolidated by the Transportation Department with those for the air and highway transportation systems to establish unified goals for Corridor transportation.

—*National Bureau of Standards*

Lobster Policy Planners Join To Avoid Depletion Of Stock

To develop a long-range program to avoid depletion of the important U.S. lobster fishery, Commerce Secretary Peter G. Peterson has called upon the Atlantic States from Maine to North Carolina to join with the National Marine Fisheries of Commerce's National Oceanic and Atmospheric Administration.

"The need is pressing," says Secretary Peterson, "for the States involved in this industry to join together and, with the cooperation of the NMFS, establish a uniform management system for both inshore and offshore stocks of lobsters. The American lobster," he adds, "constitutes the single most important Atlantic coast fishery and returns $35 million annually to American fishermen."

Despite large recent increases in the number of lobster fishermen, the yield of traditional inshore fisheries has not increased above 22-29 million pounds annual average over the past 20 years, a fact which drove lobster meat prices as high as $12 per pound last winter. Even this heretofore stable yield may be threatened, however, by recent dramatic increases in the number of lobstermen who are fishing now in deep offshore waters and who may be interfering with the supply of larvae, their movement to the inshore waters via the currents, and their contribution to the inshore lobster resources. Because lobsters take four to five years to reach one-pound size, this impact is not yet certain.

Secretary Peterson emphasizes that while additional research is essential for the full development

SORTING HIS CATCH—*A lobsterman sorts his catch of American lobster, the single most important Atlantic coast fishery which returns $35 million annually. A new program would develop a long-range program to conserve U.S. resources.*

of a rational and resource-wide management plan, the pace of events overshadowed the need to await additional basic research.

"For too many years," he added, "we have tended to study and restudy a problem with the result that the resource was gone before we decided how to save it. We are determined to avoid that error in this fishery. When the requirements of management indicate the need for specific new information, we shall acquire new data, but we cannot afford the luxury of awaiting continued refinements in the data. If we do, the proliferation of effort and sheer fishing power that are currently being attracted into this fishery will overwhelm it bringing low fishing incomes, inevitable resource depletion, and loss of jobs and social stability in hundreds of coastal communities."

The first meeting of a State-Federal Lobster Policy Planning Committee was held late last month. Subsequently there will be meetings with representatives of the lobster fishing industry to discuss these problems.

—Office of the Secretary

Texas A&M Awarded $1.5 Million To Study Fishery

Texas A&M University will make an assessment of the underutilized Texas trawl fish resource with the aid of a $1,500,000 Sea Grant awarded by Commerce's National Oceanic and Atmospheric Administration. Also to be investigated are human health hazards, factors affecting vessel storage, fishery product processing, and market evaluation for this trawl fish resource.

Pond shrimp culture will continue to be emphasized in the university's mariculture program. Texas A&M has already achieved the nation's first commercial harvest of pond-grown shrimp through its Sea Grant program. Private industry is cooperating closely in this effort. *—NOAA*

Designers See New Building Heights A Social Problem

Technologically, there are few limitations on how high a building can be built. The only limits are social rather than structural, according to two leading New York building designers. They made their comments during a recent Conference on Planning and Design of Tall Buildings held at Lehigh University at Bethlehem, Pa.

L. E. Robertson, partner in the New York firm of Skilling, Helle, Christiansen, Robertson, said "we could start erecting a mile-high structure next year, but do we really want to? The question is not *can* such a building be built, but *should* it be built," he added.

"Such a building, a whole city in one structure, is feasible and one has already been proposed," said T. C. Kavanagh, senior vice president of URS/Madigan-Praeger, Inc. "The hold-up is the social and behavioral problems which must be considered, not the structural problems," he said.

Asked about the problems of dismantling a building a quarter of a mile high, Robertson observed that it is easier to raze a contemporary building than one built years ago, since the former are constructed of fewer and lighter materials, with building members being bolted and welded.

Demolition considered

Dr. Lynn S. Beedle, director of Fritz Engineering Laboratory at Lehigh and chairman of the world joint committee responsible for the conference, said that demolition is something that should be taken into consideration during construction.

Kavanagh added that since we live in an age of change, accommodation for addition to, or subtraction from, a building must be built in beforehand.

The international conference considered future challenges and directions related to tall buildings and super skyscrapers including matters ranging from their design to withstand impact of earthquakes or storms to their own impact on man's environmental and socioeconomic life.

Tall buildings and super skyscrapers have taken on significant and new importance since 1970 at which time New York's Empire State Building, built in 1930, lost its 40-year record as the tallest of all. Soon the Sears Tower in Chicago will even surpass the others built in the past two years as it stretches a quarter-mile skyward.

First conference

This was the first worldwide conference of its kind. It was sponsored by the Joint Committee on the Planning and Design of Tall Buildings, an international organization founded two years ago at Lehigh by the American Society of Civil Engineers and the International Association of Bridge and Structural Engineers with initial support from the National Science Foundation and the American Iron and Steel Institute.

F. L. Codella, vice president of Charles Luckman Associates, of New York, told the conference that "what effect a tall building will have on the rest of a city is a question city planners should ask themselves before the building goes up. Architects and engineers should enter the political arena where questions about a building's effect on the ecology and the environment are asked. Too often we get into the picture after it is too late," he said.

Asked about the ultimate contribution of the conference, Codella said "hopefully it will give code and building officials and the general public the right questions to ask themselves before construction starts on new tall building projects. Putting up such a building in a city is like plugging in a major appliance in your home; it affects everything around it, and it can overload the circuits."

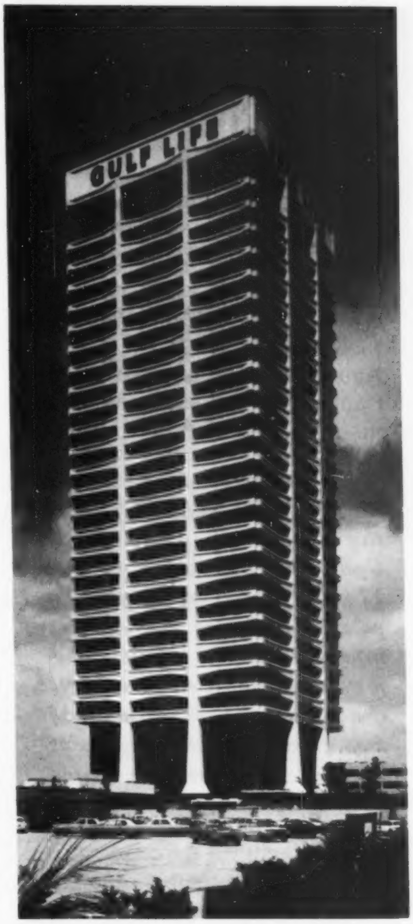
Questions as to whether buildings such as the Sears Tower, now under construction, are economic monstrosities will be resolved not by the people living or working in them, but by others involved with the services and facilities upon which such buildings still have an impact, the designers pointed out.

"A significant thing happened when the SST project was voted down because of its threat to the environment," said Cordella. "It is possible that the same sort of thing could happen with tall buildings as the public begins to understand more about their relationship to our lives. We want to help identify the problems ahead for tall buildings so we can solve them."

Kavanagh said that American cities now are becoming "polylithic," or greatly dispersed in their political decision processes. As a result, they are facing serious difficulties in reaching consensus on major problems, he pointed out.

Moscow action

He contrasted a recent move in Washington, D.C., to raise building height restrictions with action in Moscow. There, builders are moving carefully from a second stage of tall-building projects to a third stage, in which all siting of tall buildings will be coordinated in a plan that relates the center of the city with seven planning zones surrounding the heart of the city. He applauded San Francisco's Urban Design Plan saying it "may well represent a universal model of how all planning for height and bulk of buildings should be set up in order to best meet the needs of each individual city in the future."



BUILDING CONFERENCE—*A recent Lehigh University conference on tall buildings considered future challenges and directions ranging from design to withstand natural disasters to impact on the building's local environment.*

Jonathan Barnett, an architect and educator with City University of New York, said that today's building designers must find the answers to five basic problems he has recognized:

- Some system should be found to relate tall buildings to each other, instead of allowing them to spring up as zoning permits, or as building lots are assembled.
- In many cases tall buildings are erected not because they are really needed but because they represent "success symbols." A better method should be found for correct use of land.
- Many cities such as London, San Francisco, and Tokyo were originally established without tall buildings. A better solution is needed as to how to blend tall structures with buildings erected in the past.
- Too many skyscrapers are too small. It might be better to have 10 New York World Trade Centers, currently the world's tallest structure, instead of 40 Chase Manhattan buildings.

Basic design approach

- The basic design approach to today's apartment buildings must be reexamined. This approach is based on a minimum existence concept developed in Germany in the 1920s. Today's affluent apartment dwellers want something more than just the minimum.

Predicting buildings of 200 more stories and more, Robertson told one session of the conference that "the search for appropriate structural systems for these taller buildings will involve facing new problems associated with human values, service systems, and aerodynamic excitation. Methods for obtaining solutions to these problems are available and there exists no limitation in the technology of structural systems that would limit building heights to levels now in existence."

Nature's dominance

As building heights have increased, he pointed out, "the forces of nature have begun to dominate the concept of structural systems and they have taken on increasing importance in the overall building system. In the very tallest of our new buildings," he added, "these forces, gravity, wind, earthquake, fire and blast, temperature, have begun to dominate the development of nearly every aspect of the building."

He said the twin towers of the World Trade Center in New York were conceived and developed around concepts associated almost entirely with resistance to turbulent wind.

Patents Of Special Interest

Recent patents issued by the U.S. Patent Office included:

Vehicle cleaning device. This invention is a rotary mopping device to remove residual dirt and scum from top and upper side surfaces of an automobile in a machine-wash establishment which is composed of a multiarm rotor, with each arm supporting an array of mop-like strips hung at a succession of points along the length of the arm and graduated in length as a function of radial position along the arm. With the outermost strips being the longest and being so located in terms of radial distance from the upright rotation axis of the rotor as to lie beyond the sides of the widest automobile to be washed. Patent number 3,683,441 issued to Richard H. Fromme, 71467 Estrellita Drive, Rancho Mirage, Calif.

Model car remote control system. A model car or boat having a steering mechanism and a motor with a throttle control. A single remotely controlled servomechanism operatively connected to both the steering mechanism and the motor throttle control. The servomechanism has a conventional straight-arm connection to the steering mechanism, and in its intermediate position, the servomechanism holds the steering apparatus in a straight ahead position, and it is movable in a first direction to turn the car to the right, and movable in a second direction to turn the car to the left. The same unit is connected to the throttle control mechanism through a linkage which functions in a manner that with the servomechanism in its intermediate position, the throttle is at a high setting whereby the motor is turning at a higher speed to cause the vehicle to travel faster. Movement of the servomechanism in either the first or second direction causes a movement of the throttle control linkage to move the throttle to a lower speed setting. Thus, if the car is turned in either a right or left direction, the motor throttle is moved to a lower setting, while the throttle is at a higher setting with the car traveling straight ahead. Patent number 3,683,545 issued to John M. Congdon, Seattle, Wash., and assigned to Jerobee Industries, Inc., Redmond, Wash.

Apparatus for harvesting sod. An ambulatory apparatus cuts sod from a sod field in a continuous strip and includes a reciprocating cutting head assembly mounted substantially at the forward end of the apparatus. A conveying means conveys the strip cut by the cutting head assembly interiorly of and to the rear of the apparatus and into contact with a flail which strikes off excess attached soil from the underside of the soil strip. A severing apparatus cuts the sod strip into sod pads of a preselected size and a folding device folds the severed sod pads prior to being placed on a pallet supporting area located at the rear of the apparatus. Patent No. 3,672,452 issued to William W. Miner, P.O. Box 392, Cranbury, N.J.

Patents number 2,712,131 to 2,714,200 expired during the month of July, 1972. Upon the expiration of the 17-year period covered by a patent, the invention passes into the public domain and may be made, used or sold by the public without payment of any royalty, or infringement of the inventors exclusive patent rights.

Hay baling machine. A hay baling machine consisting of a wheeled frame adapted to be towed, an upwardly opening V-shaped trough carried by said frame and comprising an inclined wall and a relatively angled platform, hay pick-up and transporting devices carried by said frame and operable to pick up hay from the ground and deposit it in said trough, a powered rotary spindle disposed in said trough parallel to the apex and movable away from said apex, and powered conveyor chains. Patent No. 3,665,690 issued to Louis Wenger, 1540 Lake View Dr., Sabetha, Kansas.

Abstracts and drawings of patents are published as they are issued in the *Patent Official Gazette* each Tuesday. More than 1,600 patents are issued each week. Trademarks are published in the *Trademark Official Gazette*. Copies of the *Patent Official Gazette* and the *Trademark Official Gazette* may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

Science Calendar

Sept. 20-22—Gaithersburg, Md.— National Bureau of Standards. IEEE-TAP Conference.

Oct. 2-6—Gaithersburg, Md.— National Bureau of Standards. Third International Congress on Marine Corrosion & Fouling. Sponsored by the Permanent International Commission for Research on Preservation of Materials in the Marine Environment in cooperation with NBS, Maritime Administration, Office of Naval Research, and Naval Oceanographic Office.

Oct. 17-18—Gaithersburg, Md.— National Bureau of Standards. Association for Computing Machinery, Special Interest Group on Computer Systems Installation Management.

Oct. 30-Nov. 1—Gaithersburg, Md. —National Bureau of Standards. "Dimensional Accuracy in Mfg."

March 14-16, 1973—Chicago, Ill.— Conrad Hilton Hotel. Industrial Water & Pollution Conference and Exposition. Sponsored by Water and Wastewater Equipment Manufacturers Assn.

INTERNATIONAL COMMERCE REPORT

- **Modular housing trade mission report from Japan**
- **New "E" awards for export excellence**
- **Economic outlook in Great Britain**
- **Trade situation in several African nations**
- **Commerce Department overseas promotion schedule**

Manufactured Export Recovery Falls Short

The U.S. share of the world market for manufactures, excluding shipments to this country, increased by 1.4 percentage points during January-March 1972 from the dockstrike-depressed level in the fourth quarter of last year. Nevertheless, at 19 percent, the U.S. position remained nearly one point below its average for 1971.

The share increase this year resulted largely from the surge in shipments following the reopening of the East, Gulf, and West coast ports. Over the past two and one-half years, the country's supplier position improved in only two other quarterly periods, both times because of strike-related factors.

U.S. exports in January-March rose at nearly double the rate posted by 13 other top suppliers, despite the added lift given the dollar value of the latter's shipments as a result of the appreciation of leading foreign currencies under the Smithsonian agreement.

This induced increase in the level of competitors' deliveries to foreign markets tended to reduce the U.S. share. Nevertheless, the sharp, 18.5 percent climb in U.S. exports—to a seasonally adjusted level of $8.4 billion—more than offset the effects of the changes in exchange rates.

The U.S. official reserve transactions balance was in deficit by $831 million in the second quarter, according to preliminary Commerce Department data. This was an improvement of $2.5 billion from the $3.3 billion deficit in the first quarter.

The deficit was concentrated in late June, when the floating of the pound sterling was followed by speculative pressures in exchange markets. These pressures and large-scale foreign central bank acquisitions of dollars continued in the early part of the third quarter, before abating.

The net liquidity balance was in deficit by an estimated $2.3 billion, an $800 million improvement from the first quarter deficit of $3.1 billion.

U.S. exporters posted by far their largest gain in chemicals, as deliveries soared by two fifths over the last quarter 1971 mark. Meanwhile, sales of electric and nonelectric machinery rose by 17 percent while those of "other manufactures," a diverse group encompassing mainly semifinished goods and consumer nondurables, climbed almost as rapidly.

The smallest advance in shipments of U.S. goods to foreign markets occurred in transport equipment where the increase was held to 13 percent. In each of these commodity groups, the U.S. share rose as the nation's exports grew faster than those of the other 13 suppliers.

The most pronounced improvement in the U.S. position occurred

U.S. Share Of World Exports Of Manufactures

Adjusted for seasonal variation

Commodity	U.S. exports *(million dollars)*	U.S. share *(% of world exports to foreign markets[1])*	Commodity	U.S. exports *(million dollars)*	U.S. share *(% of world exports to foreign markets[1])*	Commodity	U.S. exports *(million dollars)*	U.S. share *(% of world exports to foreign markets[1])*
Manufactures, total			**Nonelectric machinery**			**Transport equipment**		
1968 1st qtr.	5,535	22.9	1968 1st qtr.	1,487	28.8	1968 1st qtr.	1,357	33.6
2nd	5,928	24.5	2nd	1,565	30.6	2nd	1,441	35.0
3rd	6,462	24.3	3rd	1,699	30.3	3rd	1,508	34.7
4th	6,235	22.8	4th	1,613	28.1	4th	1,594	33.9
1969 1st	5,842	21.1	1969 1st	1,506	27.0	1969 1st	1,616	33.0
2nd	6,925	23.1	2nd	1,842	29.4	2nd	1,665	33.1
3rd	7,142	23.1	3rd	1,905	29.2	3rd	1,659	32.3
4th	7,224	22.5	4th	1,963	29.2	4th	1,643	31.3
1970 1st	7,349	22.2	1970 1st	2,010	28.8	1970 1st	1,608	30.6
2nd	7,577	21.6	2nd	2,024	27.5	2nd	1,828	31.4
3rd	7,439	21.3	3rd	2,216	29.2	3rd	1,565	28.6
4th	7,424	20.5	4th	2,225	27.5	4th	1,545	25.8
1971 1st	7,832	21.2	1971 1st	2,224	27.6	1971 1st	2,040	31.6
2nd	7,692	20.3	2nd	2,063	25.3	2nd	2,096	31.3
3rd	8,270	20.6	3rd	2,250	25.9	3rd	2,016	29.3
4th	7,060	17.6	4th	2,046	23.5	4th	1,784	25.9
1972 1st	8,372	19.0	1972 1st	2,400	25.4	1972 1st	2,018	26.6
Chemicals			**Electric machinery**			**Other manufactures**		
1968 1st qtr.	751	23.6	1968 1st qtr.	542	24.8	1968 1st qtr.	1,398	14.6
2nd	812	25.1	2nd	571	26.2	2nd	1,539	16.1
3rd	920	25.3	3rd	605	25.4	3rd	1,730	16.4
4th	812	22.7	4th	586	24.2	4th	1,630	14.9
1969 1st	662	18.8	1969 1st	592	23.9	1969 1st	1,466	13.1
2nd	904	23.5	2nd	687	25.2	2nd	1,827	15.1
3rd	902	22.4	3rd	724	25.1	3rd	1,952	15.8
4th	915	22.3	4th	698	23.6	4th	2,005	15.4
1970 1st	1,007	23.6	1970 1st	721	23.4	1970 1st	2,003	14.8
2nd	967	22.0	2nd	754	22.6	2nd	2,004	14.1
3rd	930	21.2	3rd	768	22.6	3rd	1,960	13.8
4th	942	20.9	4th	796	22.5	4th	1,916	13.6
1971 1st	938	20.5	1971 1st	769	22.0	1971 1st	1,861	12.9
2nd	959	20.3	2nd	737	20.8	2nd	1,837	12.4
3rd	1,201	23.4	3rd	823	21.4	3rd	1,980	12.7
4th	754	15.2	4th	772	19.9	4th	1,704	10.9
1972 1st	1,059	19.2	1972 1st	904	21.0	1972 1st	1,991	11.6

Note: The U.S. percentage shares shown in this table are based on data for industrial countries' exports converted to U.S. dollars at prevailing exchange rates, and hence have been affected in these years by several devaluations and revaluations of currencies. Most particularly, U.S. shares were reduced by the widespread appreciation of foreign currencies which occurred in 1971.

U.S. exports and U.S. percentage shares have been distorted by the effects of U.S. dock strikes: Dec. 20, 1968—April 13, 1969 and July 1—Nov. 26, 1971.

The term "manufactures" refers to chemicals, machinery, transport equipment, and other manufactures except mineral fuel products, processed food, fats, oils, firearms of war, and ammunition.

[1] World exports are defined as exports from 14 major industrial countries, excluding shipments to the United States. These nations, which account for approximately four-fifths of world exports of manufactures to foreign markets, are: United States, Austria, Belgium-Luxembourg, Canada, Denmark, France, Federal Republic of Germany, Italy, Netherlands, Norway, Sweden, Switzerland, United Kingdom, and Japan.

in the chemicals market as this country's share rose by almost four percentage points to reach 19.2 percent. Even with this strong performance, however, it remained substantially below the level for each of the first three quarters of 1971.

Sales of organics, especially to the United Kingdom and the European Economic Community, contributed heavily to the gain, as did those of plastics and resins. At the same time, fertilizers rebounded sharply, aided by larger shipments to Brazil and India, and medicinal products and dyeing materials also advanced notably.

Machinery, too, gains

In the market for nonelectric machinery, the U.S. share rose by nearly two points to reach 25.4 percent. Higher deliveries of power generating machinery, primarily aircraft and automobile engines, led the advance, followed by nonagricultural tractors, heating and cooling machinery, materials handling equipment, and construction and mining equipment.

Although computers and textile machinery also posted gains from October-December values, sales were not significantly greater than their average quarterly level of the previous year.

Electric machinery was the only group in which the United States, during January-March, regained enough of the ground lost during the strike-affected fourth quarter to enable it to maintain its 1971 annual share level of 21 percent.

Deliveries of a wide variety of electric machinery, which had held virtually even during the closing months of 1971, moved upward. The most notable gains occurred in telecommunications equipment and power machinery and switchgear, largely reflecting sales of generators to several developing countries. At the same time, deliveries of semiconductor devices and measuring and controlling instruments also turned modestly upward.

Following a sharp decline in the last quarter of 1971, U.S. exports of transport equipment rebounded to previous levels during January-March. As a result, this country's share climbed to 26.6 percent, although still remaining by a wide margin below the marks recorded in each of the first three quarters of last year.

Shipments of automotive products to Canada provided most of the impetus for the increase. Although the flow of finished cars advanced only modestly, deliveries of parts, mainly to U.S. subsidiaries, grew by more than one third. This development reflected increased Canadian production of compact models, most of which return to the United States.

Meanwhile, sales of civilian aircraft, which had been buoyant in the early months of last year, but faltered during the second half, remained sluggish during the first quarter of 1972.

The U.S. share in the "other manufactures" group expanded to 11.6 percent but it also remained below levels recorded in the first three quarters of 1971. Exports of a variety of industrial supplies recovered notably from the strike-bound fourth quarter, especially those of paper products and iron and steel, primarily tubes, pipes, and fittings. Nonferrous metal shipments posted sizable gains, mainly attributable to copper although aluminum deliveries also rose modestly. At the same time, sales of scientific instruments, textile yarns and fabrics, and photographic supplies improved as well.

France, Japan improve

Only France and Japan among this country's five leading competitors significantly increased their shares of the manufactures market during January-March 1972, despite the added boost given the dollar values of their exports as a result of currency realignments.

Following a year in which their position remained virtually unchanged, French exporters raised sales more than 13 percent and enhanced their overall standing by three tenths of a point to 9.5 percent. Gains in electric machinery were especially notable and France was the only one of the five to enhance its standing in the chemicals market. Nevertheless, a loss in nonelectric machinery and a lackluster performance in transport equipment held the overall French gain to moderate proportions.

Japan, after incurring a mild setback in the fourth quarter of 1971, regained the 10 percent share of the manufactures market it had held earlier that year. Although the Japanese share fell sharply in chemicals and more modestly in "other manufactures," strong performances in transport equipment and both machinery groups more than offset those declines.

Germans edge up

The German share edged up slightly as shipments expanded only fractionally faster than those of the other major competitors. Germany posted its largest increases in nonelectric machinery, where its standing was enhanced by nearly one point. Losses were sizable in chemicals and electric machinery.

Both Italy and the United Kingdom recorded share declines after both substantially improved their positions during the previous quarter. Italian exporters supplied a considerably smaller part of the market for all major types of manufactures, particularly electric machinery and chemicals. Thus, the Italian share of total manufactures slipped to 7.5 percent.

British exports declined by more than 4 percent during January-March 1972, partly as a result of the coal miners' strike and the attendant electric power cuts. Consequently, the United Kingdom's position dropped by at least one point in four of the five commodity groups and more than two points in nonelectric machinery. Overall, the U.K. share fell to 10.2 percent.

AT CONSTRUCTION SITE IN OSAKA—*The U.S. modular housing trade mission to Japan views Japanese methods. From left, Ritsuo Uchimura, Ralph Yokoyama, Thomas A. Eastland, Thomas J. Dillon, Delp W. Johnson, Edward Oliver, Mrs. Johnson, and J. Douglas Kilpatrick, III. Uchimura and Yokoyama are associated with the Castendyk and FCE-Dillon firms, respectively.*

Modular Housing Mission Sees Business In Japan

Profitable business relationships with Japanese firms are expected to develop from the contacts made by a recent U.S. modular housing trade mission to Tokyo and Osaka.

The modular housing concept—construction using prefabricated units—is particularly suited to Japan, according to Mission Director Edward Oliver of the Commerce Department, because of the country's high-density population and the scarcity of certain types of wood and other natural resources. Such construction, however, is only now becoming more popular with the Japanese industry. For this reason, the mission members generally agreed that U.S. technology could have a significant impact on current Japanese methods. The U.S. companies represented on the mission are suppliers of industrialized housing systems and of building materals and accessories for such systems.

The mission's visit was "perfectly timed," Thomas A. Eastland of Hydro-Air Engineering, St. Louis, commented. It coincided with the early period of the Japanese Government's second five-year housing program which is scheduled for completion by March 1976—presenting an ideal opportunity "to get in on the ground floor." The program calls for 9.5 million new housing units, of which 30 percent are expected to be factory mass-produced. During the next 12 years, an estimated 16.5 million units will be required to ease the country's chronic housing shortage.

As prefabrication is said to be the most promising development in the Japanese housing industry, both Government and industry are eager to obtain the latest techniques for producing housing systems.

About 20 construction companies are presently manufacturing prefab houses in Japan. Among them, five top manufacturers predominate with their annual sales ranging from 5,000 to 10,000 units. Construction of medium and high-storied prefab houses of reinforced-concrete are mostly sidelines of the major construction companies. Smaller scale companies are more in need of modern building technology and investment capital than the large firms. Because building sites are scarce and expensive, replacement of low and medium-storied structures by higher buildings is expected to accelerate.

As per capita income continues to rise and the demand for better housing becomes stronger, Oliver concludes that "there is every reason to believe that U.S. housing expertise will continue to be a highly exportable commodity for some time."

Discussions with Government and industry officials prompted J. Douglas Kilpatrick III, of R. L. Castendyk Co., Honolulu, to declare that "small companies such as mine would not have been able to make such contacts on our own."

Mission members, in addition to those mentioned, were: Thomas J. Dillon, FCE-Dillon, Inc., Akron; Delp W. Johnson, Foldcrete International, San Francisco; and Carl L. Gillis, Jr., Adrian Housing Corp., Adrian, Ga.

ASIE Schedules Fall Exams For International Traders

U.S. foreign traders are invited to participate in the Career International Trade examinations just announced for this fall by the American Society of International Executives. The 18th semiannual ASIE exams will be held Nov. 11 at commercial centers throughout the country.

The tests are given in three categories, as follows: Certified Documentary Specialist (CDS), for which one year of experience is required; Certified International Executive (CIE), two years' experience; and Qualified International Executive (QIE), five years' experience. Exams for CIE and QIE may be taken in export management, traffic management, forwarding, or air forwarding.

Costs of study outlines and examination fees are available in a free brochure from ASIE, 734 Land Title Bldg., Philadelphia, Pa. 19110. Applications must be approved by Oct. 20.

Nebraska Group Finds Prospects In Mexico Trip

Despite advance indication that direct selling in Mexico might be difficult, a trade mission from Nebraska came back encouraged by the business opportunities it found.

Although governmental import policy is restrictive for many commodities, sales of some products represented on the mission are expected within the next 12 months.

"Some members learned that only component parts of their products could be sold direct with a possibility for a licensing arrangement," reported Mission Director John Andresen, president of the Midwest International Trade Association, Omaha. "Others are looking into the possibility for producing their product under a joint venture."

Varied products

Under the auspices of the Midwest association, and coordinated by the International Department of the First National Bank of Omaha, the seven-member mission was comprised of executives of companies that manufacture such products as electronics components, aerial platforms, cranes and diggers, agricultural and turf spraying equipment, herbicide incorporators, irrigation pipe gates and systems. Some food products also were offered.

During the group's stay in Monterrey, Mexico City and Guadalajara, several agents were appointed, and several more are under negotiation. Some 120 potential customers were interviewed.

"These first contacts," commented William T. Wheeler, of the Nebraska Department of Economic Development, "however promising they may have seemed, will not automatically result in ether a small or large amount of business for the participants. An aggressive pursuit into each potential opportunity will be necessary by mail, by telephone and possibly a return trip to Mexico before recording a successful completion of this trade mission. The future will tell the story."

The mission, the second to be sent out by the Midwest association, was approved by the Commerce Department under its industry-organized Government-approved mission program.

Firms' Foreign Borrowing Topped $3 Billion In 1971

Nearly $3.3 billion of long-term foreign borrowing was used by U.S. enterprises to offset 1971 direct investment abroad. This compares with $2.8 billion in 1970 and $2.6 billion in 1969.

After deducting for the use of the proceeds of foreign borrowing, regulated foreign direct investment, exclusive of investment in Canada, increased to $4.9 billion last year from $3.8 billion in 1970, primarily as a result of a $797 million increase in debt repayment.

Excluding the effects of foreign borrowing and debt repayment, the increase in direct investment was the smallest since 1968's actual decline. Direct investment is defined as the sum of net capital transfers plus reinvested earnings of foreign affiliates. Direct investors are defined in the Foreign Direct Investment regulations as corporations and individuals owning or acquiring a 10 percent or greater interest in a foreign business enterprise.

The 1971 totals were given by Commerce Department's Office of Foreign Direct Investments, in releasing a two-part statistical report on its program results. Copies may be obtained from the Information Office, Office of Foreign Direct Investments, Department of Commerce, Washington, D.C., 20230, telephone: 202-343-7317.

EDP Unit Assesses Markets In Japan, Korea, Hong Kong

A small but enthusiastic trade mission specializing in electronic data processing expects good results from its early summer visit to Hong Kong, Korea, and Japan.

The mission members, representing companies with systems capability in software and hardware services, met with business leaders, Government officials, and executives of leading trading companies to assess markets and to discuss possible sales and joint venture, cross-licensing, and product representation arrangements. In addition to talking with some 75 businessmen through individual appointments, the members visited various Government service and technology centers in Hong Kong, Seoul, and Tokyo.

Hong Kong and Korea are somewhat less sophisticated EDP markets than Japan. However, the potential for U.S.-manufactured EDP products will be considerable there within the next three years. The Korean Government, in particular, presents opportunities for cross licensing agreements.

Two of the companies expect to consummate representation agreements in the near future, according to Mission Director Don R. Henderson, of the Commerce Department's Office of International Trade Promotion. "To a man," he reported, "all members voiced satisfaction with results and expressed interest in joining subsequent missions to other areas of the Far East."

U.S. businessmen members were: Don Gallant, Actron Industries, subsidiary of McDonnell Douglas Corp., St. Louis; Dr. Marvin Ling, Graphtek, Inc., Phoenix; Irwin Stone, GRI Computer Corp., Newton, Mass.; and Thomas Jones, Collins Radio Corp., Dallas.

PROUD EMPLOYEES—*Chick Master Incubator Corp. employees gather at the plant in Cleveland for flag raising following presentation of the "E" Star award to the firm. The company has entered 13 new markets in the last five years.*

Top Export Awards Go To Manufacturers, Marketers

Firms and organizations in six States and Puerto Rico have received recognition from the U.S. Government for their outstanding export achievements. Four of the enterprises received "E" awards for successful efforts to promote the sale of U.S. products abroad, and three were presented "E" Stars for continued superior performance in foreign marketing activities.

Viking Pump Division of Houdaille Industries, Inc., Cedar Falls, Iowa, received an "E" Star at an Award Dinner attended by 22 overseas distributors who were participating in the Division's International Seminar. Viking won the "E" award in 1963 when 8 percent of its business was done overseas; international sales now represent 14 percent of total business.

A Cleveland firm, Chick Master Incubator Corp., was recipient of an "E" Star. Chick Master exports a significant portion of its total sales and accounts for well over half of all U.S. exports of incubators and hatchers. The firm has excelled in exporting by designing equipment which meets power and other requirements of foreign customers and incorporates technological improvements which enhance product price and quality competitiveness. Chick Master's "E" award came in 1967.

Also receiving an "E" Star was International Commodities Export Corp., New York. A wholly-owned subsidiary of All-Tech Industries, the firm specializes in marketing fertilizer and fertilizer raw materials for U.S. producers. Since receipt of the "E" award in 1969, the company has continued to expand export sales through vigorous marketing efforts, including development of a large network of exclusive agents and implementation of a liberal credit policy.

Winners of "E" awards

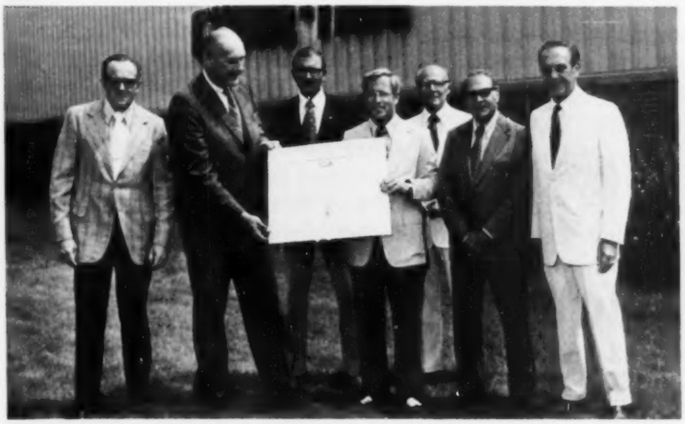
The companies and organizations whose export excellence was recognized for the first time, with "E" awards, included the Puerto Rico Products Association. The Association, headquartered in Hato Rey, is an industrial organization created in 1966 by the Puerto Rican manufacturing community for the purposes of stimulating export interest among its members and developing foreign markets for locally-made goods. It has played a significant role in promoting Puerto Rican international trade.

Washington Manufacturing Co. of Nashville, a producer of apparel, won an "E" award as a result of greatly increased export sales during the last few years, including a 50 percent rise in 1971 over 1970. A sizable increment in the percentage of export sales to total sales has also taken place.

Another "E" award winner is Chore-Time Equipment, Inc., of Melford, Ind. The manufacturer of feeding, watering and ventilation equipment considerably increased its worldwide distributor network as well as international sales from 1969 to 1971.

The Dynamatic Plant of Eaton Corp. received an "E" award for achieving a substantial increase in export sales. The manufacturer of hydraulic dynamometers and eddy-current adjustable speed drives and systems is located in Kenosha, Wis. Through expansion of its distributor network, improvement of parts and servicing facilities, sponsorship of training courses for customers and personnel, flexible pricing arrangements, provision of indigenous language material and design of products to meet specific needs, the company has penetrated new market areas.

COMMERCE OFFICIALS DO THE HONORS—*In upper left picture, Commerce representative presents an "E" award to Washington Manufacturing Co. in recognition of its outstanding export achievements. From left are Robert E. Simpson, Director, OICR-BIC; T. W. Comer, president; and Rep. Richard Fulton. At right, Lawrence A. Fox, Commerce's Deputy Assistant Secretary for International Economic Policy, honors the Puerto Rico Products Association. From left are Fox; Enrique Vilella, Director, San Juan Field Office; Luis Cortes Ramos, Puerto Rico's Secretary of Commerce; and Rodulfo Quinones.*



CERTIFICATE FOR CHORE-TIME—*From left, Charles Stump, asst. general manager of the Milford, Ind. firm; Richard L. Bronwell of Commerce's Chicago Field Office; Al Miller, president of the Milford Town Board; Forrest Ramser, director of international sales; H. S. Brembeck, president; State Senator John Sugsburger; and State Rep. Thames Mauzy.*

VIKING FLAG—*An "E" Star went to the Viking Pump Division of Houdaille Industries, Inc., located in Cedar Falls, Iowa. The award was presented by Iowa Governor Robert D. Ray (left), to Frank Standish (center), Viking Division president, and Grant J. Wilsey, director of Viking's International Division. The ceremony was held at Viking's first world seminar.*

LOOKING IT OVER—*David F. Howe (right), Director of Milwaukee Field Office, presents an "E" award citation to C. N. Brandon, general manager of Eaton Corp.'s Dynamatic Plant.*

MAKING THE AWARD—*Henry Kearns (right), Chairman of the U.S. Export-Import Bank, presents an "E" Star flag to E. S. Finley, president, International Commodities Export Corp.*

Shows Present Instruments, Printing, Design Engineering

Industrial, scientific and test and measuring instruments: Thailand. This Jan. 29-Feb. 2 exhibit at the U.S. Trade Center in Bangkok will lead off the first series of shows in the Southeast Asia area geared to industrial and scientific instruments. Market research indicates a strong sales potential for the following products which will be displayed: scientific and laboratory items; materials testing and quality control; industrial process controls; electric and electronic test and measuring equipment; environmental testing instruments; automatic temperature controls; and nuclear radiation detection and monitoring instruments.

Market research indicates that the Southeast Asian market for this type of equipment, where American sales have increased by 275 percent during the past five years, will continue to grow at an ever increasing rate.

This show is being directed to a broad audience composed of key instrumentation equipment buyers representing governments, manufacturing firms, educational institutions, hospitals and laboratories.

For information, call Irvin Lloyd at 202-967-3783, or write him at BIC-958, U.S. Department of Commerce, Washington, D.C. 20230.

Design engineering: France. The Department of Commerce is sponsoring an exhibit of U.S. design engineering parts and components June 2-3 at INOVA 73 in Paris. The American manufacturer has an advantage in the French market-place because he represents new techniques in mass production not yet mastered in Europe.

French imports from the U.S. in 1971 amounted to $1.8 billion. The French economy is now the fastest growing in Europe, and GNP in 1972 is forecast at $195.5 billion. The French five-Year *Plan Mecanique* (1971-75) places special emphasis on expansion and automation of manufacturing industries.

The total French market for all types of American design engineering parts and components is estimated at more than $165 million. The automotive and aerospace industries alone offer a market that is growing by 10-20 percent annually. The French Government is making development capital more readily available for modernization and automation of manufacturing.

In Europe, U.S. products are generally regarded as having high quality and high technology. The recent realignment of currency rates effectively revalued the French franc by 8.6 percent against the dollar, and the German mark by 13.6 percent. This should permit U.S. exporters to significantly reduce their prices in France, and to benefit from increased price competitiveness.

For details, call Robert B. Wallace at 202-967-4508, or write him at BIC-948, U.S. Department of Commerce, Washington, D. C. 20230.

Printing and bookbinding equipment: France. To help U.S. firms take advantage of the opportunities the French market offers to producers of printing and bookbinding equipment, the Department of Commerce has scheduled an exhibition at the U.S. Trade Center in Paris, January 23-27. The show will allow some 30 U.S. companies to exhibit their products to a select audience of potential buyers.

In addition to a highly literate domestic market of 51 million, many books and periodicals printed in France are distributed throughout the world to French-speaking peoples.

Domestic production of printing and bookbinding equipment is not sufficient to satisfy demand. In 1971 alone, imports of printing and bookbinding equipment topped $63 million; U.S. firms supplied 10.7 percent of the total.

U.S. printing and auxiliary equipment enjoy a good reputation in France, both for quality and servicing.

The recent currency realignment has in some instances lowered the price of U.S.-supplied equipment compared to that from domestic or other European suppliers and thus increased the price competitiveness of U.S. firms in the market. Price is not always the prime concern; reliability and minimum downtime are features which French printers are increasingly demanding.

For more information, call Sam S. Spaulding at 202-967-3968, or write him at BIC-948, U.S. Department of Commerce, Washington, D.C. 20230.

Printing and bookbinding equipment: Japan. Recent market research reveals a substantial and growing market for a broad range of printing and bookbinding equipment, and the U.S. Trade Center in Tokyo has scheduled a March 16-19 exhibit to help U.S. manufacturers increase their share. The Japanese market for these items, now approximately $200 million, is expected to surpass a quarter-of-a-billion dollars by 1974.

The climate for export-import exchange between U.S. and Japan is favorable to the U.S. It is based upon Japan's rapidly increasing Gross National Product, the yen-dollar revaluation, Japan's phenomenal economic growth, its extensive foreign reserves and, especially, Japan's decidedly favorable balance of trade with the U.S.

The market research indicated strong sales potential for the following types of equipment: composition items, platemaking for both offset printing and photography, presses for both books and newspapers, plates, binding equipment, and instruments and controls.

For additional market information, call Robert Levine at 202-967-4705, or write him at BIC-950, U.S. Department of Commerce, Washington, D.C. 20230.

Data processing, reprographic and office equipment: Singapore. U.S. suppliers of EDP equipment will have a ready-made showcase for their products in the expanding Southeast Asian market at an April 9-14 commercial exhibition in Singapore.

Products to be exhibited will include: small and mini computers, high speed printers, magnetic tape encoders and transports, data transmissions, teletypewriter terminals, microfilm, microfiche, motorized records retrieval equipment, programable calculators, electro-mechanical accounting machines, photocopiers, mailing, addressing, labeling machines, laminating equipment, office bending machines and related office equipment. Other equipments which have a high sales potential are: accounting machines, electric calculating machines, desk calculating machines, small and medium size general purpose computers, desk top computers, computer tape, disc pack keyboard to magnetic tape recorders and remote terminal equipment.

For full details, call Thomas Padgett at 202-967-4727, or write him at BIC-918, U.S. Department of Commerce, Washington, D.C. 20230.

JEEP Is Now A Vehicle To Aid U.S. Exporters

JEEP, a by-word for rugged dependability in a vehicle during the Second World War, now signifies the U.S. Government's desire to serve as a vehicle for introducing American firms to export profits.

More specifically, through the Joint Export Establishment Promotion (JEEP) program, Commerce Department's Bureau of International Commerce will make its U.S. Trade Centers overseas available on a special basis to new-to-market companies.

The following special conditions will now apply to new-to-market firms, either singly or in groups of two to eight offering related items:

The Commerce Department will defray up to $300 of the cost of overseas promotional activities for each participating company, and up to $100 of the cost of returning to the U.S. point of origin or another JEEP show any salable items not sold at the show; each participating company is required to contribute $300 toward promotional and hospitality expenses abroad.

JEEP exhibits are planned in connection with the following upcoming Trade Center Shows:

Personal and property security devices, Tokyo, Oct. 23-27; Auto emission test and measurement equipment, London, Oct. 24-26; Automotive equipment, Tokyo, Nov. 6-10; Cryogenics, Stockholm, Nov. 20-22; Analytical instruments, Paris, Nov. 27-30; Mini-computers, Buenos Aires, Nov. 29-Dec. 1; Specialized equipment for banks, Mexico City, Dec. 4-8; Swimming pool equipment, Paris, Dec. 6-8; and High vacuum equipment, Milan, Dec. 12-14.

Firms seeking details on participating, may contact a Department of Commerce Field Office (see list on inside back cover) or call 202-967-3363.

New U.S. Export Promotion Center Opening In Osaka

A new trade promotion facility is being opened in Osaka, Japan, this week by the Commerce Department, with the South Carolina State Development Board playing co-host at the premiere.

The facility, called the American Merchandise Display, is in the offices of the U.S. Consul General. Osaka is about 350 miles from Tokyo, where there is a U.S. Trade Center. Osaka's marketing area annually consumes a greater dollar volume of U.S. exports than any European country except West Germany and Great Britain.

The American Merchandise Display is a 2,100 square foot showroom. It is available to U.S. firms new to the Japanese market, and to agents of U.S. firms already selling in Japan.

Like the Tokyo Trade Center, the Osaka showroom will be open for product displays, seminars and other events promoting U.S. exports.

For the South Carolina group, the Sept. 7-9 Osaka opening will be a highlight of a trade mission promoting sale of U.S. textiles in Tokyo, Osaka, Hong Kong and Singapore, Sept. 3-15. The group also will hold an exhibition in the Tokyo Trade Center. The exhibitions will feature fabrics for apparel, upholstery and linens.

Future Osaka events include an October exhibit of industrial and commercial security equipment by six U.S. manufacturers new to the Japanese market, and an exhibit of automotive diagnostic equipment tentatively set for November.

For more information on use of the Osaka facility, write BIC-950, U.S. Department of Commerce, Washington, D.C. 20230. (202-967-4756)

International Business Reports

World Business Systems and Environments. Published by Intext Educational Publishers. 513 pp. $13.50.

Significant environmental factors of the business systems of five regions of major economic interest, including their main problems and trends in today's business world are discussed. An introductory chapter presents a conceptual framework for the analysis of business systems and their interaction with the environment. Medium-length analyses of each of the five regions in terms of major business and environmental factors follow.

The purpose is to examine the total business system—management, marketing, finance, industrial relations, and production.

Write: Box 30, Intext-Chandler, Scranton, Pa. 18515.

Manager in the International Economy. By Raymond Vernon. 460 pp. $14.95.

Primary concern of this book is the problems of international payments, trade and investment that confront managers who operate across international boundaries. It concentrates especially on the problems of managers of multinational enterprises; that is, enterprises with affiliates and subsidiaries in several national jurisdictions that respond to a common strategy and draw on common resources. This newly-revised second edition outlines basic problems encountered in international trade and payments, supplies fundamental facts and concepts necessary to solve them.

Write: Prentice-Hall, Inc., Englewood Cliffs, N.J. 07632.

Socio-Economic Progress in Latin America. Annual report of the Inter-American Development Bank. 348 pp. Free.

Latin America in 1971 continued to exhibit the high rate of economic growth which has characterized the region since 1968, according to this report. During 1971, the Bank study says, the real growth of the Latin American economies as a whole was approximately 6.6 percent, equal to the average of the three previous years and well above the cumulative annual increase of 5.1 percent in the years 1961-67. This annual survey of Latin America's social and economic growth contains a regional and country-by-country analysis of recent trends in key development sectors.

Write: Inter-American Development Bank, 808 17th St. NW., Washington, D.C. 20577.

Calendar For World Traders

Sept. 5-7 — New York — Consultations with Felix Bloch, U.S. trade specialist stationed in West Berlin, Commerce Field Office.

Sept. 5-15—Chicago—International Machine Tool Show, McCormick Place and International Amphitheater.

Sept. 7 — Cleveland — Cleveland World Trade Assn. monthly luncheon, Mid-Day Club.

Sept. 13 — New York — Foreign Credit Interchange Bureau Export Credit Group dinner meeting, Advertising Club, 4 p.m.

Sept. 14—New York — Overseas Automotive Club luncheon and meeting, Summit Hotel, noon.

Sept. 14-Oct. 19 — Cleveland — Weekly series of international trade workshops sponsored by Cleveland World Trade Assn., Union Commerce Building.

Sept. 19 — New York — FCIB Hardware-Automotive & Allied Trades Group luncheon meeting, Advertising Club, 12:30 p.m.

Sept. 19—New York—International Executives Assn. Luncheon, Forum Room, New York Sheraton, noon. Subject: Impact of Britain's Entry Into EEC on the U.S.

Sept. 20-21 — New York — DISC Seminar, World Trade Institute, World Trade Center.

Sept. 21—Cleveland — CSU-Cleveland World Trade Assn. DISC Seminar, Statler-Hilton Hotel.

Sept. 21—New York—FCIB Drug, Chemical & Food Export Club luncheon meeting, Advertising Club, 12:15 p.m.

Sept. 22 — Charleston, S.C. — Consultations with John Blodgett, Commercial Counselor at the U.S. Embassy in The Hague, Commerce Field Office.

Sept. 24-28 — Washington, D.C.— Third International Conference on Liquefied Natural Gas, Wash. Hilton. U.S. sponsor: Institute of Gas Technology (Chicago).

Sept. 25 — Philadelphia—First of twenty-six weekly sessions of Export-Import traffic course, Academy of Advanced Traffic.

Sept. 25-27 — Rotterdam, Netherlands—FCIB/Europe Roundtable Conference on Finance, Credit and Collection problems, followed by two-day workshop, Rotterdam Hilton Hotel.

Sept. 27—South Bend, Ind.—Michiana World Trade Club. Subject: East-West Trade.

Sept. 28 — Chicago — East-West Trade Conference sponsored by the Chicago Assn. of Commerce and Industry.

Sept. 28—Oklahoma City—Second annual International Trade Symposium, How to Expand Exports, 9:30 a.m.-4 p.m. Sponsors: Oklahoma City Chamber of Commerce, Oklahoma State Fair, International Trade Club of Oklahoma City.

Sept. 29-30 — Washington, D.C. — Annual conference of Middle East Institute: World Energy Demands and the Middle East, Georgetown U. Law Center.

Worldwide Business Outlook

British Near Growth Goal, But Inflation Fears Mount

The British economy is recovering from the effects of the coal miners' and dock strikes and is headed in the direction of the government's goal of a 5 percent annual rate of growth.

The 20-day strike by British dock workers was officially called off Aug. 16. Normal work on the docks has resumed and the docks are being cleared of goods stranded during the strike.

Main expansionary force

Consumer expenditures appear to be the main expansionary force as installment credit and personal loans continue to expand rapidly. Export volume has also recovered somewhat from depressed first quarter levels and government expenditure is rising sharply.

Manufacturing investment continues to be a disappointment. The latest investment intentions survey points to a 3 percent decline in 1972 following 1971's 5 percent fall.

However, profit positions are improving rapidly and latest information indicates that bank loans to industry are beginning to pick up. The increased demand for credit by all sectors has been reflected in tightening interest rates, with the banks' base rate now standing at 7 percent.

Unemployment has dropped much faster than anticipated.

There is renewed concern that inflationary pressures may be mounting despite the fact that increases in the retail price index have been cut sharply. By May, the year-on-year increase was down to 6.1 percent compared to last summer's 10.1 percent peak. However, the increase in average earnings is picking up, with May's year-on-year comparison of 11.8 percent reversing earlier declines and moving near levels existing during the period of greatest wage pressure. The rise in basic hourly wage rates has reached a plateau of 12 percent, a level unlikely to be consistent with a reduction in inflationary pressures.

There are fears that the large wage settlements in the coal mine and rail disputes could set off a renewed wage spiral and thus heat up inflation more. The price implications of the floating pound, tax on value added (TVA) and higher rents add to these fears. Money supply increases at an annual rate of 20 percent are also a major factor in the fears of renewed inflationary pressures.

Efforts are continuing on development of a policy to restrain inflationary wage and price increases. Industry and the unions are setting up an independent conciliation service to help settle disputes before they lead to strikes.

The impact of inflation on Britain's competitiveness, strikes and a faster growing economy have cut deeply into 1971's balance of payments surplus. Visible trade registered a $500 million deficit in first half 1972 compared to a $660 million surplus in the second half of last year. The invisible surplus continues to more than offset this deficit, leaving a current account surplus, but one which totalled only $80 million in the first quarter and probably not much higher in the second quarter.

As a result of the Smithsonian Agreement, capital inflows were reduced sharply in the first quarter. However, Britain's official short and medium term debt has all been repaid, reserves are at historic highs and its IMF credit position is restored.

Despite high official reserves and a continued current account surplus, huge speculative capital outflows resulted in the Government temporarily floating the pound on June 23. After reserve losses of $2.5 billion, further efforts to hold the rate were considered by the Government as likely to lead to unacceptable reserve losses. In addition, the Government did not believe that the objective facts of Britain's balance of payments warranted a devaluation, and there was concern that such an act might call into question the Smithsonian Agreement.

After the reopening of foreign exchange markets on June 27, the pound has floated downward to the $2.45 range, representing a depreciation of about 6 percent from the central rate agreed to in December. The Government has stated that the float is temporary and that it "hopes" to be able to return to a fixed exchange rate by Jan. 1, 1973.

In addition to floating sterling, exchange control regulations were imposed on capital transactions with the sterling area with the exception of the Irish Republic and the Channel Islands. The Government has stated that these exchange control measures are temporary and necessitated by the fact that many sterling area countries now have exchange rates not tied to the pound.

Prospects for rest of 1972

The present buoyancy in the economy suggests that second half 1972 will be marked by rapidly improving aggregate demand. The budget measures announced in March resulted in tax cuts of more than $3.6 billion and a central government budget deficit of $8 billion. It is expected that these measures will boost the underlying growth rate by 2 percent. Virtually all the impact of these tax cuts, as well as those of last summer,

LONDON SHOW—*Al Wurz, president of Accu-Sort Systems, Inc., Sellersville, Pa., demonstrates a code-bar scanner at a Materials Handling & Control Equipment Trade Center show held in May.*

are aimed at consumer expenditures.

Government expenditures are also set to rise sharply in the second half as last year's moving forward of expenditure plans begins to have an effect on outlays. Some improvement in the foreign sector was also anticipated before the float. Renewed stockbuilding is also expected. Sterling's floating down could add a further stimulative factor.

While growth could be rapid, significant soft spots in the economy remain. Inflation shows little signs of abating significantly in the absence of further progress in moderating wage claims. The increase in the money supply is very high by both historic and international comparisons. The recent sharp rise in productivity could be cut back somewhat in the face of weak investment trends and the reabsorption of labor. The economic base from which the economy is growing is much lower than estimated at the time of the Budget. Growth is heavily weighted towards consumer spending, with little response from non-residential investment or other private sectors. Confrontations between the Government and unions over industrial relations policy continue to disrupt the economy.

To the extent that the dollar-sterling rate continues below the $2.60 rate established last December, the improved competitive position U.S. producers received in the Smithsonian Agreement vis-a-vis British producers will be eroded. However, U.S. products continue to benefit from the improved competitiveness gained last December.

Also, in recent months the price level in the United Kingdom has been increasing faster than in the United States, thus giving some competitive advantage to U.S. producers. Furthermore, the major reflationary measures in the U.K. budget provide a spur to economic activity at a time when it was beginning to flag. This will increase demand for imported goods and improve market opportunities, especially in the consumer area of the economy.

Major tax changes

In addition to the tax cuts, major modifications in Britain's tax structure were introduced in the March Budget, which will affect U.S. business. Details of the tax on value added (TVA) to be introduced in April 1973 to replace purchase tax and selective employment tax were presented. There will be a single TVA rate of 10 percent with full exemption for such major categories as exports, fuel and power, building construction, books and newspapers and services to overseas traders. As a transition measure, the 45 percent and 30 percent rates of purchase tax were reduced to 25 percent. As a revenue measure, and after institution of TVA, there will be an additional 10 percent tax on cars.

The Government has announced that the taxation of corporate income will be based on the imputation system beginning April 1, 1973, in order to eliminate double taxation of distributed income. It has also announced that the change will necessitate a revision of international taxation agreements and that these negotiations will be undertaken as rapidly as possible. Free depreciation on immobile plant and equipment was also extended in the Budget to the entire country instead of just the development areas. A new 20 percent grant for plant and equipment expenditures, in addition to free depreciation, has been introduced for the development areas.

Specific areas which will be of immediate interest to U.S. producers include:

► North Sea Oil—Over the next decade, vast sums will be spent to exploit North Sea offshore oil. U.S. participation will be substantial.

► Coal—The British Steel Corp., the only substantial importer of coking coal, says it will bring in about 800,000 tons during the coming 12-month period, almost all from the United States.

► Chemicals—The U.K. chemical industry can fill all the orders it now has, and more, and consequently U.S. chances of increasing exports at the expense of domestic manufacturers are diminished.

► Clothing—American jeans for young people are selling extremely well.

► Machine Tools—This industry in 1971 suffered its worst trading year since the war and is now just beginning to show the first slight signs of a recovery.

► Electronics — This industry continues to depend largely on consumer items for its success stories, mainly hi-fi and TV equipment.

► Computers—The computer industry continues to be profitable but only at about half the rate of 1971.

► Aerospace—The aerospace industry continues to post record export figures, March being the highest ever, but most of this continues to come from spare parts and reconditioned equipment, thus depending upon sales and manufacturing efforts of some years ago. The longer term picture continues to look gloomy.

Argentina Expects Moderate Growth Though Uncertainty Is Keynote Now

The Argentine economy continues to show a moderate rate of growth in a period marked by uncertainty.

Manufacturing activity is especially brisk although it was showing signs of weakening at midyear. The serious financial situation—a negative balance of payments and a very low level of reserves—contributed to a climate of business uncertainty and fears that an improvement may be slow in coming.

Inflation is increasing at considerably above the rate projected for 1972. Although favorable economic developments may cause inflation to slow down, it will probably remain at uncomfortably high levels through the middle of 1973.

Agriculture in general is lagging, but the brightest spot in the economy is sharply increased receipts from meat exports, which should hold up through the end of 1972.

The major cause of uncertainty is the election scheduled for March, 1973—the first in eight years. Many businesses in Argentina as well as prospective investors are adopting a "wait and see" attitude on new investment and on modernization and expansion plans.

Embassy's prediction

The U.S. Embassy in Buenos Aires predicts that such political and economic uncertainties will continue to dominate the economy for the balance of 1972 and the first quarter of 1973. The main productive base of the economy is sound, and conditions could improve as a political resolution is evolved later in 1973.

As far as trade and investment prospects are concerned, the Argentine economy presents a mixed picture. Industrial activity in the second quarter increased over the first quarter. A first quarter survey of major companies showed that most of them improved their profit position over the previous quarter (the average was 16 percent). Another survey showed that half the businessmen expected their second quarter production to be higher than in the first quarter, although this level of business optimism was lower than in the preceding quarter.

However, a profit squeeze is developing. The Government's wage-price policy is based on an attempt to keep down pressure for wage increases by imposing price controls, some formal and some informal. The fact that wholesale prices are increasing faster than retail prices means that pressure is mounting on retail prices.

More purchasing power

The Government will probably maintain considerable pressure to keep prices down. Another Government-decreed wage increase is expected for no later than September or October (the last one was in May) and businessmen are apprehensive that the Government may require them to absorb all or a large part of it without raising prices. However, this will mean another considerable injection of purchasing power into the economy which wage-earners will probably hasten to spend, thus keeping up purchases of consumer goods, both domestic and imported.

The main factors keeping the economy running at a relatively high speed have been: 1) government-decreed salary increases, which the recipients generally spent rather than saved; 2) a high level of government expenditure, particularly on public works projects; and 3) the inflationary mentality which is taking hold to an increasing degree: "spend now because money will be worth less tomorrow."

If profits decline sharply, so will the desire of Argentine businessmen to import new capital equipment. This would leave the Government as the main purchaser of such equipment. Indeed, Government agencies and enterprises are steadily expanding not only within their present spheres of action, but are also going into new fields, for example, petrochemicals.

Study this carefully

This is a trend which is not likely to be reversed and one which U.S. business should carefully study. The Government may well decide to expand into other industrial fields which have been designated as "basic," especially if sufficient private capital is not available, or is not willing to invest on terms the Government considers advantageous to the overall economy.

The government's procurement policy is based on a single principle: to maximize the use of its own purchasing power to support Argentine-owned business and industry. This means that, on a large project, the Government limits tenders to Argentine-owned firms if there are capable firms in the field. If it is necessary to invite foreign bids, bids proposing the largest possible procurement of Argentine goods and services will be favored. If a project is partially financed by an international lending organization which requires international bidding, it will be broken down into packages so that foreign bids are called for only on the portions receiving the international financing.

On several occasions in recent years, Government agencies have invited and received bids on large projects and have subsequently thrown out all or some bids after extended periods of negotiation. On the other hand, U.S. companies have won some large contracts during the past year. The government's procurement practices should be carefully studied by U.S.

firms contemplating bidding on large projects.

In 1971 and through the first half of 1972, Argentine imports have been sustained by a high level of industrial activity and by a desire on the part of producers and consumers to stockpile and to anticipate future purchases as a hedge against inflation. Both peso credits and foreign exchange credits have generally been readily available to finance imports.

Not for much longer

However, this situation is not likely to last much longer. Foreign financing for exports to Argentina is getting tighter because of the general economic and political situation, and peso credits are also becoming more difficult to obtain. Furthermore, purchases which have been made in anticipation of future needs will begin to diminish as businesses and industries become stocked-up.

Another factor which will tend to hold down imports in general is the trend towards increasing import restrictions. In the face of a probable balance of payments deficit almost as big as that in 1971, the Government is likely to impose additional import restrictions. All articles which could be described as luxurious (including most consumer goods) are already subject to either flat prohibitions, prohibitive tariffs, or import licenses.

Since this has not brought about a reduction in imports acceptable to the Government, more products will probably be made subject to licensing, quotas may be imposed, and the composite exchange rate will almost certainly be altered to make imports more expensive. The Central Bank may also lengthen the terms of financing which it requires importers to obtain from their foreign suppliers.

SQUIBB ARGENTINA—*White-clad Argentines produce pharmaceuticals in this subsidiary of the New York-based firm.*

Despite all this, imports will probably total around $1.8 billion in 1972. Argentina's economy requires sizable amounts of imported capital goods, intermediate products and raw materials regardless of temporary ups and downs. Argentina furnishes a sizable market, well worth the attention of U.S. exporters.

Increased attention will be needed if the U.S. position in the Argentine market is not to suffer serious erosion. According to Argentine foreign trade figures, 1971 imports from the United States declined dollar-wise as well as percentage-wise. In 1970, the United States had 24.8 percent of the market, while in 1971 it went down to 22.2 percent. Dollar value of 1971 Argentine imports from the United States was $415 million. The reduction in the U.S. market share still left the United States with a slightly greater percentage than 1969's 21.9 percent.

Monthly figures show a sharp decline in the U.S. market share to the neighborhood of 16-18 percent beginning in November 1971 and going through January 1972. This drop in the U.S. percentage is due to import restrictions imposed by the Argentine Government in the second half of 1971 which are affecting U.S. sales more than those of competitors.

Theoretically, the U.S. economic measures of last August should have helped the U.S. competitive position here. However, in practice they have not yet had an apparent effect. The biggest reductions in U.S. sales to Argentina were in the fields of machinery and general manufactures. This trend, however, was noted in U.S. exports worldwide in 1971.

Machine tools offer good possibilities for American exporters despite the intense competition. The unit value of imported machine tools is higher than the unit value of those manufactured in Argentina, indicating that there is a demand for higher technology equipment. Imports amounted to about 50 percent of the total demand, which is approximately $50 million and is expected to increase to $70 million in 1975. The increase could be greater because the domestic industry is suffering from a lack of investment in modern equipment and techniques.

Other good prospects

Other fields offering good prospects are process control equipment; printing machinery; water purification and distribution equipment; electronics equipment, especially airport and shipboard electronics; and chemicals.

A large contract has recently been let to American companies for the dredging of a deep water channel in the Paraná river which will allow larger ocean going vessels to reach Rosario and other ports up the river. This, together with port-building and expansion projects in the South of Argentina, will create a significant demand for port machinery and equipment.

Some months ago, the U.S. Export-Import Bank offered the Argentine Central Bank a $100 million Cooperative Financing Facility. If, as expected, the Central Bank accepts the offer, this will provide financing for additional U.S. exports of many kinds for which adequate financing is not now available.

Austerity In Store For Zambia Until Copper Prices Rise Again

Depressed world copper prices are making this a difficult period for the Zambian economy. The U.S. Embassy in Lusaka reports that austerity will be the dominant feature of the economic scene so long as copper prices remain low.

The slumping copper revenue and a drop in production following a mining disaster have resulted in considerable deterioration in Zambia's terms of trade. The trade surplus declined by 76 percent in 1971 and the balance of payments was in deficit by an estimated $204 million.

To offset the deflationary impact of lower copper revenues, the Zambian Government throughout most of 1971 pursued inflationary fiscal and monetary policies. By late 1971 foreign exchange reserves had fallen by 50 percent and the rate of decline made restrictive action necessary.

Restrictive measures

Beginning in December 1971 the Government adopted a series of restrictive measures including stricter control of remittances, a 5 percent import surcharge, restraints on credit availability, a ban on nonessential imports, and a cut in planned budget expenditures. To broaden the revenue base, the Government has eliminated the shareholder's credit for company tax on gross dividends and introduced a 15 percent withholding tax on dividends payable to residents and non-residents.

Zambia's currency, the kwacha, was devalued by 7.89 percent in December as a consequence of pegging the kwacha to the United States dollar rather than to the pound sterling.

By January, measures to bring about a major reorganization of the economy were basically complete with virtually all important mining, industrial, commercial and financial enterprises having been brought under government ownership or control. Retail and wholesale trading, with some exceptions, has been confined to Zambian citizens or state companies. However, the Government has not gone ahead with its announced plans to take a majority interest in all foreign-owned commercial banks.

In January, the Government initiated the Second National Development Plan (1972-76) with ambitious targets for diversification and growth in all sectors including a 34 percent increase in copper production and emphasis on developing the rural sector.

Suppliers will feel impact

Although agriculture has had an exceptionally good year, the decline in overall growth will restrain expansion in the manufacturing and construction sectors and will have an impact on overseas suppliers, including exporters in the United States.

The slowdown in growth and the government's delationary policy to correct the deterioration in the balance of payments, particularly on the merchandise account, will result in lower government capital expenditures for development projacts and a decline in imports. Rising costs and uncertainty over future economic stability will also restrain new investment in plant and inventories by the private sector. Since it is unlikely that copper prices in the immediate future will attain the high levels of 1969-70, this situation is likely to have an impact on overseas suppliers and on the development of new markets for exports well into 1973 and possibly beyond.

U.S. trade and investment interests, however, will be somewhat insulated from the decline in economic activity by virtue of their being concentrated in the mining sector. Maintaining the planned expansion of the copper industry will have the highest priority and imports for the sector should continue to be considered essential.

Nevertheless it can be expected that the rate of growth in U.S. trade with Zambia over the past few years will probably decline in 1972-73. Imports of non-durable consumables and luxuries will be hardest hit. The construction sector, where the United States is a major supplier of heavy equipment, is also likely to experience a much slower rate of expansion.

Looking for capital

Internal resources over the next year or more will not be sufficient to support the ambitious development program set out in the Development Plan. To finance its budget deficit and to move forward with priority development projects, Zambia will increasingly be looking for external capital and export credits. In addition, there will probably be a sharp increase in the demand for capital and technical assistance from foreign official sources.

There are already clear signs that the Government will act to improve the investment climate for potential, private foreign investors and will actively seek new investment. There is recognition that the policy of state participation needs to be spelled out in greater detail, possibly with less emphasis on majority state control in non-strategic industries.

The Government has announced that it will formulate an Investment Code containing incentives and guarantees to potential investors. The United States has an investment guaranty agreement with Zambia under which political risk investment insurance may be obtained from the U.S. Overseas Private Investment Corporation (OPIC).

Niger Still Trying To Advance, But Moving Slowly

Niger has made little economic progress during more than a decade of independence. This landlocked African country just north of Nigeria is still striving to develop but is nowhere near self-sufficiency in either agricultural or industrial output, according to the U.S. Embassy in Niamey. Nevertheless, the Embassy reports that there are some opportunities in Niger for American business.

Niger, historically, has presented an example of the West African counterpart to the so-called "banana republics" of Central America. A "peanut republic" par excellence, bulk peanuts, cake, and oil accounted for 65 percent of the country's exports by value in 1970, a slight increase from 1969.

Peanuts bring cash

For the farmer, peanuts represent a source of cash to meet the few expenses he has: taxes, school fees, an occasional length of cloth for his wife, and perhaps a bicycle. Although the Government encourages peanut production, the individual farmer traditionally views this crop as secondary to subsistence food items: millet and sorghum.

Livestock, primarily cattle on the hoof, but including live sheep and goats, frozen meat, and hides, represented 18 percent of Niger's exports by value in 1970. The nation's herds are slowly but steadily recovering from a disastrous drought in 1968-69 which killed as many as 70 percent of the cattle in some areas.

Like most developing countries, Niger looks to import-substitution industries to provide foreign-exchange savings and employment opportunities. High transportation and energy costs, however, together with limited market potential, have retarded Niger's industrial development.

Successful enterprises

Successful enterprises include a brewery and soft-drink bottling plant, agricultural processing installations such as groundnut crushers and cotton gins, a plastics plant, a metal fabrication factory (primarily furniture), a brick kiln, a dairy, match and soap factories, and a millet flour mill. New industries include a gas bottling plant, and the processing complex associated with uranium deposits at Arlit. The Government remains the largest single employer, accounting for slightly less than half of the salaried work-force of roughly 29,000 people.

KENNEDY BRIDGE IN NIGER—*U.S. aid funds helped build this bridge over the Niger River. Efforts to develop the infrastructure offer opportunities to U.S. firms.*

Plans exist for a tannery, a cigarette factory, a vegetable-meat cannery and a sugar refinery. It is clear, however, that such future industrial development as proves possible in Niger (barring the discovery of substantial amounts of oil) will be related mainly to the agricultural sector.

Niger's economy has stagnated since the country became independent. Per capita income in real terms showed an increase of only 1.5 percent during the first six years of independence, and there has been little, if any, progress since 1966. Efforts at increased agricultural output have shown that production depends more on rainfall and presence or absence of pests in a given year than on extension work and new farming techniques. Niger has sought to overcome these basic handicaps through expanding its horizons, both in terms of aid and trade.

Planned increase

The central government operating budget for 1972 shows a planned increase in expenditures of 8.7 percent over 1971, the first sizeable increase since 1969. Despite the increase, the budget calls for no increases in taxation, hoping to augment income through general improvement in the economy. The introduction to the budget says bluntly that the development of the economy will depend on the harvests, which in turn depend on the amount of rainfall more than any other factor.

The government's realization that taxation has reached a maximum is apparent, although there is little reason to believe that merely holding taxes down will increase the peasant farmer's buying power. Unfortunately, principal factors governing Niger's economy (rainfall, world market prices for primary products) are beyond the control of her leaders. The most notable breakthrough has been the ability of President Diori to secure external financial assistance. Indeed, one might consider his diplomatic ability as Niger's most valuable "natural resource."

Though there has been no discovery (beyond uranium) of exploitable petroleum or mineral deposits to date, the search for underground riches has been one of the most encouraging facets of an otherwise gloomy economic picture.

Though uranium has not yet proven to be the cure-all it was hoped to be because of depressed world market conditions (there is some question now as to whether the French will expand Arlit's capacity as previously planned), the Japanese have continued their interest in the Akokan deposits. Three major American firms (Sun Oil, Continental Oil, and Texaco) have begun, or will shortly begin, surface exploration for petroleum.

Boost in morale

The sight of U.S. oil crews operating in Niger has given the country a boost in morale. To date, work has been conducted by contract prospecting firms, notably Ray Geophysical, and Rogers Advanced Prospecting.

Some activity is going on in nonpetroleum mineral research as well. Essex Iron, a subsidiary of U.S. Steel, is carrying out exploration in the western portion of the country. Bishop Oil and Refining has announced a program of research for diamonds in the Air mountains of Niger.

Because Niger has been successful in securing external financing for many of its development projects (funds are in prospect to pave the entire primary road system, although some of this work is for the medium-term rather than short-term future), several possibilities for American consulting and engineering firms may present themselves. Among these, road studies rank high together with other infrastructure improvements such as the Niger River port facilities at Gaya and Niamey and raising the low bridge at Malanville. While the trans-Saharan road is still far from a reality, engineering and feasibility studies will be necessary if it is ever to be achieved. Projects with a regional interest, such as development of the Liptako-Gourma region, will also necessitate various studies, especially mineralogical and hydrological surveys.

Plantations Abandoned In 60s Offer Opportunity For Investment In Zaire

Transportation and agriculture are the two key sectors in the Republic of Zaire's development plans, and are receiving priority attention in terms of Government manpower and budget allocations.

As the Government intensifies its efforts to modernize and expand transport links and agricultural output, points out the Commerce Department's Africa Division, numerous opportunities for U.S. agribusiness involvement in this promising central African country are being created. One such lead for American businessmen interested in Zaire's agricultural prospects is the large amount of land once exploited as coffee, tea or palm oil plantations, but abandoned in the 1960s during the country's political difficulties.

Deserted estates

For example, in one of Zaire's eight provinces—Haut Zaire—there are an estimated 376 plantations, totaling 56,500 acres, which are now completely deserted or populated by squatters. The American Consulate in Bukavu reports that in the Bukavu area of Kivu Province more than 50 large private agricultural estates were abandoned between 1962 and 1966. Although much of the land was bought at rock-bottom prices by European entrepreneurs during the 1962-66 period, today only one major Belgian interest is active in the area, and the remainder of unclaimed or unworked plantations is being occupied by residents who do not hold titles giving them ownership to the land.

A major drawback to immediate investment in the agricultural sector is the deterioration of transport links between the interior of the country—the location of most of the plantation areas—and major business centers and outlets to the seas. However, since this problem has top priority in development plans, energetic efforts are being made by the Zairian Government in conjunction with a number of international agencies (including the World Bank) and the U.S. Agency for International Development to update Zaire's highways, expand port services and modernize airports. With the attention that is being given to transportation improvements, many of which will be in operation by 1975, U.S. investors are encouraged to investigate acquiring agricultural land now—before the best selection is purchased by other foreign investors.

In an effort to determine the extent of owner-deserted land throughout the country and get it back into production under titleholders, the Government is invoking provisions of 1966 legislation known in Zaire as the "Bakajika Law."

Disposition of property

This states in part that the Zairian Government "assumes full and free disposition of all property, forest and mineral rights conceded or ceded before June 30, 1966, in property or in participation to any third party—corporate or individual."

In implementing the Bakajika Law, Zairian provincial governors are conducting a census of all actual abandoned houses and plantations in their respective provinces. When the census is completed, the properties will then be made available to Zairians for productive use. Compensation plus interest will be paid the prior owners, who had to register their claim to former possession of the land by June 30. However, if an owner did not make some improvement or increase the value of his holdings in the 18-month period prior to Jan. 1, 1972, the property automatically reverts to the Zairian Government, with no compensation paid. These properties will be made available by the Zairian Government to approved persons wishing to develop them.

Law does not discriminate

Zairian law does not discriminate between Zairian nationals and foreigners in respect to property ownership. However, it would appear that in line with the Bakajika Law, the Zairian Government is endeavoring to encourage Zairian participation—and joint ventures between Zairians and foreign nationals — in redeveloping these properties. The Government has expressed its intention to clarify the law's provisions on this subject and to set down guidelines for disposition of the properties by the Provincial Governors. Such guidelines will be published in *Commerce Today* when available.

Further, some of the large companies currently working plantations may be willing to sell portions of their holdings. The purchase of land from existing large firms would have the added advantage of direct transfer of ownership titles.

Although the results of the census due June 30 are not yet available, a copy of the most recent listing of abandoned plantations in five Zairian provinces, their acreage and use—as of Dec. 31, 1969—is available to interested U.S. investors from the Africa Division, BIC-884, U.S. Department of Commerce, Washington, D.C. 20230.

Foreign Financing Will Help Make Ethiopian Market More Attractive

Heavy public capital inflows over the next year or two will expand Ethiopia's market for U.S. goods and services.

While import levels are growing annually at almost 5 percent, the entire Ethiopian market is small in U.S. terms. The market is becoming more attractive, however, as a result of public financing approaching an annual commitment level of $75 million, mostly from the World Bank, United States, Sweden, Germany, and the United Kingdom. The largest shares will be devoted to agricultural and agricultural-related projects, and to improvements in transportation and development of water supplies.

John R. Savage, Economic-Commercial Officer at the U.S. Embassy in Addis Ababa, advises U.S. firms offering goods and services in these areas to increase their surveillance of World Bank and other financing institutions in order to have early knowledge of opportunities as they emerge from prefeasibility study to design and engineering stage and thence to tender and bid.

In addition to externally financed projects, Ethiopian Government entities, both public and private, will continue and in some cases increase their procurement abroad of machinery, tools, and equipment, especially for production, processing, and packaging of a widening range of agricultural and animal products. Business-facilitation equipment will continue to be in demand, as may be popular communications items for internal business administrative use.

The alert company may also enjoy a share of the growing "taste" market for U.S. personal apparel and personal cosmetics and preparations. Selling to the rural areas, other than of production-oriented items (e.g., spray units), would likely call for a combination of sales of U.S. components with manufacture in part assembly in Ethiopia. Home lighting apparatus and water pumps are examples.

The transport field deserves special notice. The movement of people, commodities, and ideas is now growing into a large industry in

OLD MIXES WITH NEW IN ADDIS ABABA—*Looking up Churchill Rd., the main road of Ethiopia's capital, to the Municipality building from the railroad station.*

Ethiopia, and yet its real growth lies ahead. Systems in this field adapted to Ethiopian conditions, needs, and economics can be sold by American firms who bring to the Ethiopian scene the accustomed U.S. business concern for the buyers' viewpoint, without which results will at best be meager.

To compete effectively in the Ethiopian market American firms will have to pay attention to the following: (a) Competitors in Europe and Japan often offer up to 90 days credit without interest, six months at 4.5 percent or even up to two years at 6 percent; (b) Ethiopian importers need quotations c.i.f. the ports of Assab, Massawa or Djibouti in order to reckon their competitive position accurately; (c) Although U.S. products are still considered to be of very high quality, foreign competitors are approaching U.S. quality, necessitating competitive pricing by American exporters; (d) Models should not change too often and items must not be too intricate; (e) Answers to inquiries which are prompt, specific and which show awareness of the local scene lead to orders for goods; (f) Nothing sells more effectively than personal contact. Regular visits to check on market conditions and to help local agents result in regular sales; and (g) Prompt follow-up service sustains and increases sales.

While no assurance can actually be given that sales will follow, firms which can fulfil the above requirements will be in a position to enter the Ethiopian market effectively, particularly in the following lines: six to ten-ton trucks with and without trailers; road, dam and other medium and heavy construction equipment; agricultural machinery and tractors; aircraft, air terminal, ground and service equipment and other aviation items: hotel design, construction and management as well as hotel appliances and fixtures; consumer goods; and tele-communications (microwave and SSB radio) equipment.

Because of his contacts within Ethiopian society and his interest in sales of those products he represents, an alert local agent is often indispensable. He can provide timely notification of tender opportunities and assist in getting specifications set which do not inadvertently bar the use of the latest U.S. designs and may actually favor them.

U.S. EQUIPMENT IN ETHIOPIA—*A road is built in a rugged rural area. Firms interested in this market are advised to get a good local agent and support him.*

Agent needs support

To qualify for representation by top level Ethiopian businessmen demands, in turn, a willingness to support them quickly and efficiently. One European firm thoroughly investigated several potential representatives approximately seven years ago and settled on a man who, at the time, had only U.S. $2,000 in capital. Over the years they backed him with credit reaching up to a million. Now, the agent has gained 95 percent of the growing Ethiopian market in which the European firm he represents competes. All debts are rapidly being paid off and the home company will most likely dominate one highly lucrative sector of the Ethiopian market for the foreseeable future.

U.S. manufacturers have a special opportunity in Ethiopia. This is so because Ethiopia, with only a brief period of Italian occupation, is not linked by relationship or preference to goods from any ex-colonial European country. The United States has a long record of economic and military assistance to Ethiopia. As the largest purchaser of Ethiopia's major export, coffee, the United States provides over half of the foreign exchange earnings of Ethiopia. Since European and Japanese firms are entering the market enthusiastically, U.S. companies would be remiss if they did not make an aggressive attempt here, where opportunities are equal to all comers.

The purchasing power of the population of Ethiopia, despite continued development and increased foreign aid inputs, will remain limited for one or more generations. The numbers of things which can be brought into the market will be counted in tens, hundreds and thousands, rather than in hundreds, thousands and millions. Therefore, American concerns entering this market should think about it as part of the greater East African complex where the total regional sales volume in a four to eight country area should support a resident U.S. representative.

Worldwide Business Services

International trade specialists in the Department of Commerce and Foreign Service Officers in the U.S. Embassies and Consulates around the world are continually developing specific commercial opportunities through which American companies can find buyers, agents, partners or investors overseas. One of the major means for communicating these opportunities promptly and accurately to the U.S. business community is through the columns of this magazine. The section that follows presents details about U.S.-sponsored overseas exhibitions and missions, licensing and joint venture proposals, opportunities to sell to foreign firms and government agencies and appoint agents, details on major construction and expansion projects and notices of U.S. visits by foreign buyers.

U.S. Promotions Overseas

JAPAN. Foundry Equipment and Supplies Trade Mission. Oct. 29-Nov. 3. This Mission will be going to Tokyo and Osaka. Display facilities will be available at the U.S. Tokyo Trade Center and the U.S. Consulate General in Osaka. Call Bill Dawson, 202-967-5286.

SCANDINAVIA—Sweden, Denmark and Norway. Food Processing and Packaging Machinery and Equipment Trade Mission. Oct. 30-Nov. 10. These countries appear to be good prospects for modern automated equipment, especially in the processing and packaging of meat for export and of specialty and convenience foods, which are the fastest moving sectors of the Scandinavian food market. Membership will be limited to 12 U.S. firms. Call Wanda Ale, 202-967-3905.

CZECHOSLOVAKIA, POLAND AND AUSTRIA. Environmental Protection Seminar and Trade Mission. Nov. 5-17. A convening of environmental experts in Czechoslovakia will afford American companies excellent opportunities to respond to invitations from that country's government and thereby make contact with influential engineers and purchasing authorities. Poland is now doubly important owing to its role as coordinator of the Comecon pollution protection efforts. Austrians, moreover, are buying now! A special U.S. delegation will accompany the mission to Czechoslovakia where members of the mission will also be called upon to present papers. Call Fred E. Crosley, Jr. on 202-967-2232.

AUSTRALIA. Electronic Components Measuring and Testing Equipment. Sydney Trade Center. Nov. 6-10. Electronics is one of the prime markets in Australia, averaging 10 percent growth per year. The import market is currently $100 million annually. The recent announcement that color TV is to be introduced in 1975 offers U.S. manufacturers of broadcasting equipment and test and measuring equipment additional sales opportunities. Call John Klingelhut, 202-967-5751.

SPAIN AND SWITZERLAND. Printing Equipment and Supplies Trade Mission. Nov. 6-17. Products recommended for promotion include photoengraving and related equipment, fluorgraphic and photopolymer plates, photocomposition equipment, small office type offset printing presses, printing machines, rotary presses, and auxiliary tools, apparatus and supplies. Call Joseph Muller, 202-967-4227.

BELGIUM AND NETHERLANDS. Production and Quality Control Instrumentation Trade Mission. Nov. 6-18. Market factors make participation in the Mission favorable as economic growth increased total sales of this equipment to $200 million last year. Imports comprise 90 percent of the market and are projected to reach $275 million annually in four years. Call Charles E. Johnson, 202-967-2798.

BRAZIL, COLOMBIA, VENEZUELA. Aviation Equipment Trade Mission. Nov. 6-18. Products to be promoted are equipment requirements for upgrading international airport facilities, air-ground instrumentation and all types of general aviation equipment. Call Stanley Hays, 202-967-4927.

IRAN, LEBANON, UNITED ARAB EMIRATES. Water Purification Trade Mission. Nov. 10-23. Companies producing equipment for water purification, sewage disposal, and desalination are invited to join this group. Limited to ten firms. Phone Larry C. Cozart, 202-967-2051.

JAPAN. Industrial Assembly Equipment and Supplies. Tokyo Trade Center, Nov. 13-18. Japan's "recession" is bottoming out and business activity gradually picking up. The ceiling on loans for import financing was raised on April 1 from 20 percent to 50 percent, in effect making it easier for Japanese businessmen to import goods from abroad, including the U.S. These developments, plus a favorable market research report on industrial assembly equipment, are encouraging to U.S. exporters. Call Maurice Shea, 202-967-4511.

ITALY. Pollution Control Equipment. Milan Trade Center, Nov. 15-19. The Italian Government, in its most recent Five-Year Plan (1971-75), has allocated $3.5 billion for pollution abatement. For 1972 Italy's water and air pollution control equipment market is valued at $300 million. Additionally, strict legal actions during 1971 along with a growing public outcry against mounting pollution has created a strong buying interest among Italian municipal and industrial decision makers. Research indicates that pollution control equipment has not been exhibited sufficiently in the country. Consequently, the U.S. Trade Center, located on the Milan International Fairgrounds, will host 30-35 U.S. firms in conjunction with Italy's largest antipollution exhibition, ANTINQUINIMENTO '72. Contact Don Johnson, 202-967-2795.

WEST GERMANY. Electronica '72. Munich, Nov. 23-29. The U.S. Department of Commerce exhibit in the biggest electronics show in the world will feature production equipment for the electronics industry, measurement and test equipment, and electronic components. Indicators point to a 10 percent or better annual rate of increase in the European electronics market through the rest of the seventies. In West Germany, the largest of the European electronics markets, forecasts are upward for 1973. ELECTRONICA '72 gives U.S. electronics manufacturers an opportunity to exhibit for this market as it starts to expand again. Call Don Schmadel, 202-967-4601.

IRAN, TURKEY. Textile Machinery Trade Mission. Nov. 26-Dec. 11. Companies producing textile machinery and related products are invited to join this group. Limited to ten firms. Phone Larry C. Cozart, 202-967-2051.

PHILIPPINES, HONG KONG, KOREA. Metalworking and Plastics Production Trade Mission. Nov. 27-Dec. 6. Both the metalworking and plastics industries in these countries appear to have good prospects for the sale of U.S. equipment. These industries in the countries to be visited are upgrading their capabilities and look to the United States as a principal source of new advanced equipment. Potential customers in the region are most interested in metal fabrication and a wide range of control, test and monitoring equipment. Call Charles E. Johnson, 202-967-4464.

BAHRAIN, KUWAIT, SAUDI ARABIA, UNITED ARAB EMIRATES. Building and Construction Equipment Trade Mission. Nov. 29-Dec. 20. Product categories limited to building construction equipment and supplies, highway and road construction equipment, construction tools. U.S. Foreign Service Posts in Middle East have strongly endorsed this mission which is designed to capture a share of the monies that will be expended on the construction and housing boom now taking place. Limited to 10 U.S. firms. Phone H. Socks, 202-967-3904.

WEST GERMANY. Pumps, Valves and Compressors. Frankfurt Trade Center, Dec. 4-7. Demand by German end-users of pumps, valves and compressors has been growing more rapidly than the ability of domestic producers to meet it. By 1975, due to an accelerated rate of investment, German buyers are expected to spend more than $1.15 billion annually, almost double the 1967 level, for such equipment. The United States, with a 23 percent market share, is the leading foreign supplier of pumps, valves and compressors to the German market. The growing order backlog, plus the effect of the currency revaluations, should give U.S. suppliers new and greater sales opportunities in this expanding market. Call your local U.S. Department of Commerce Field Office.

SCANDINAVIA. Pollution Control Equipment. Stockholm Trade Center, Dec. 4-9. Growing environmental concern in the Scandinavian countries has prompted the enactment, or consideration, of comprehensive legislation to combat increasing air, water, and solid waste pollution problems. Sweden alone plans to invest nearly $1.2 billion for plants, systems, and equipment for industrial and municipal pollution control in the 1971-75 period. Although domestic suppliers account for a sizable share of the Nordic market, U.S. equipment and control techniques are highly regarded and price is only secondary when it comes to solving serious pollution problems. Potential customers are most interested in solid waste treatment and recycling equipment, water treatment apparatus, and test and monitoring instrumentation. Call H. L. Kirchschlager, 202-967-4543.

FRANCE. Printing & Bookbinding Equipment. Paris Trade Center, Jan. 23-27, 1973. The French printing and publishing industry offers a good opportunity for U.S. manufacturers of printing and binding equipment to expand sales. Rising labor costs in France are leading to new, more efficient methods. Wages in French industry increased nearly 11 percent in 1971. Domestic production of printing equipment is not sufficient to satisfy demand and France relies on imported equipment. In 1971, imports of printing and binding equipment reached $63 million. The United States supplied 10.7 percent of the total. Call Sam Spaulding, 202-967-3968.

SCANDINAVIA. Electronic Components. Stockholm Trade Center, Jan. 29-Feb. 3, 1973. Scandinavian production of electronic equipment is projected to resume a strong growth pattern in the next four years. This will stimulate a substantial growth in imports of components, which in 1971 accounted for nearly three fourths of the estimated $230 million component market in the four-country area. The outlook is especially favorable for sophisticated components used in process controls, telecommunications including microwave systems, optoelectronics, EDP peripheral equipment, and medical instrumentation. American components for these applications are second to none in design and construction and are highly regarded by Nordic end-users. Moreover, prices of imported components from leading European suppliers have been increasing because of currency revaluations and inflationary pressures. U.S. firms offering unique and technically advanced components have an excellent chance to share in this expanding and lucrative area market. Call A. J. Beiring 202-967-3838.

THAILAND. Industrial, Scientific, and Test and Measuring Instruments Exhibition. Bangkok, U.S. Regional Trade Development Center, Jan. 29-Feb. 2, 1973. The decade of the 70's will see massive industrial development in Thailand. Concurrent with this development is the need for more sophisticated instrumentation. Thailand imported $8.2 million of instruments in 1970. Based on conservative estimates of economic growth, this figure is expected to reach at least $14 million by 1975. U.S. instrument exports to Thailand in 1970 were $2.5 million. U.S. instrumentation has been consistently well received by Thai industry and with aggressive sales effort in Thailand by U.S. instrument manufacturers over the next few years, the share of this market will expand. Call Irvin Lloyd, 202-967-3783.

ITALY. Industrial Electric Power Systems Exhibition. Milan Trade Center, Feb. 6-10, 1973. Projected public spending increases and the recent currency realignments combine to make Italy an especially attractive market for U.S. small to medium industrial electric power generating equipment and ancillary control, test and maintenance equipment. ENEL, the state electric power agency, is reportedly planning to spend $7-9 million on expanding facilities during the 1972-75 period. Additionally, market research projects that Italian industry will purchase some $254 million worth of electrical power generating and related equipment during 1973. Expected government building projects along with increased construction of industrial plants, hospitals and petrochemical plants will require inputs of electrical power generating systems. Call Noel Negretti, 202-967-4941.

NORTHERN EUROPE. Data Processing Equipment. Stockholm Trade Center, Sept. 18-23 (closed) and Olympia, London, Dec. 4-8, 1972. Frankfurt Trade Center, Feb. 12-16, 1973. Three exhibitions will be staged between September 1972 and February 1973 to acquaint Scandinavian, United Kingdom and West German end-users with the latest equipment, accessories and software available in the United States. U.S. exports of EDP equipment to these three areas in 1971 totaled $382 million. Growth rates between 1969 and 1971 are dramatic: To Scandinavia—up 65 percent; to the United Kingdom—up 40 percent; to West Germany—up 66 percent. The first show, EDP-IV, in Stockholm, will involve equipment and software for all applications—business, process control, scientific research. The U.S. exhibition at COMPUTER '72 will emphasize business applications. The specialized Minicomputers show in Frankfurt also will cover the entire spectrum of EID uses. Call C. Edward Walls, 202-967-4256.

JAPAN. Industrialized Building Exhibition. Tokyo Trade Center, March 5-10, 1973. In the next few years, Japan is expected to move strongly into prefabrication and modular housing. Various governmental initiatives are being taken to assure success. This exhibition is planned to capitalize on the Japanese Construction Ministry's current five-year home construction plan which calls for 9.5 million houses to be built by 1976; of these, a five-year average of 20 percent will be prefabricated. The following major categories will be emphasized at the exhibition: building systems, specialized automated fabricating equipment, general building construction equipment, and building materials. Call Maurice A. Shea, 202-967-4511.

ITALY. Apparel Manufacturing Equipment. Milan Trade Center, March 12-16, 1973. A steadily expanding market, combined with an improving rate of exchange between the dollar and lira, provides American firms with a unique opportunity for sales of high technology, mass production garment-making equipment. Industrial sewing machines and attachments, cloth handling equipment, and computer controlled cutting and sewing machines are especially sought. With equipment purchases averaging $40 million yearly and an expanding economy, prospects for sales in the Italian market are bright. Call Don Johnson, 202-967-2795.

Space Fully Booked

The following exhibitions and trade missions in which all exhibit space has been reserved are still open for visits by interested industry representatives.

Hotel and Catering Equipment Trade Mission to Bahamas, Haiti and Santo Domingo, Sept. 19-29; U.S. Packaging Exhibition, PAKEX 72, United Kingdom, Oct. 9-13; Metals, Metal Processing and Production, and Technical Metallurgy Equipment, Milan Trade Center, Oct. 10-14; Instrumento Expo-72, Buenos Aires Trade Center, Oct. 16-20; Materials Handling Equipment, Paris Trade Center, Oct. 16-20; Graphic Arts Machinery and Equipment Exhibition, Mexico City Trade Center, Oct. 16-20; Advanced Business Machinery, Caracas, Oct. 24-28; Analytical Instruments, Frankfurt Trade Center, Oct. 23-27; Electro-Optics and Laser Equipment, London Trade Center, Nov. 13-17; Information and Document Storage and Retrieval Equipment, Mainz, West Germany, Nov. 14-16.

Sales opportunities in one U.S. commercial exhibition, 14 shows at the 10 U.S. Trade Centers, and 10 Trade Missions are being offered to present and potential U.S. exporters between now and March 1973.

Each Trade Center exhibition is limited to one particular line of products and centers are located in Bangkok, Buenos Aires, London, Milan, Mexico City, Frankfurt, Stockholm, Sydney, Tokyo, and Paris. For further information on the Trade Center shows described or for more facts on U.S. exhibitions, write: *Foreign Export Promotion, BIC-936, U.S. Department of Commerce, Washington, D.C. 20230.*

Trade missions are groups of U.S. businessmen organized to travel abroad promoting the export of U.S. goods and services made by their particular industry. Write: *Trade Missions, BIC-940, U.S. Department of Commerce, Washington, D.C. 20230.*

Licensing, Investment Abroad

Licensing and investment proposals from foreign firms are listed in these columns. Specific product interests in each proposal are highlighted in bold type to facilitate identification and each proposal is preceded by the appropriate four-digit product number taken from the Standard Industrial Classification (SIC) Manual.

Background information on opportunities abroad and assistance on overseas investments are available from the Office of International Investment, BIC-878, U.S. Department of Commerce, Washington, D.C. 20203. "P" numbers should be used when responding to specific proposals.

WTD indicates that a World Trade Directory Report containing financial and background information on the foreign firm is available for $2 from the Department of Commerce, BIC-924, Washington, D.C. 20230, or from any Commerce Field Office.

SWITZERLAND — Distributor of foodstuffs, mineral oils and chemical-technical products seeks to process under license or distribute in Switzerland: **food products, chemical-technical products, automotive accessories, consumer plastics, detergents, protective paints and compounds, LPG gas equipment, lubricants for use by the small trade and industry, catering equipment, pollution control equipment or any U.S. product with a genuine novelty character.** Will also consider franchise proposals in these lines and the retail and catering trade. Firm equipped for processing of foodstuffs, lubricants, detergents, paints, chemical and technical products. Represents several U.S. firms. Additional information available from the Office of International Investment, BIC-878, U.S. Department of Commerce, Washington, D.C. 20230, or Bernard Friedli, Schweizer & Co., 3601 Thun, Switzerland. WTD. P-72500.

1499 — PERU — Technical know-how sought by government development agency to **develop deposit of diatomite.** Royalty payments offered to experienced U.S. firm. Terms subject to negotiation. Write: Ingeniero Victor Oviedo R., Asesor de Rehabilitacion y Desarrollo de Arequipa, Arequipa. P-72492.

2011—JAMAICA—Small group of investors seeks technical know-how on contract basis to establish **modern abattoir/meat packing plant.** Abattoir would process beef, sheep, pigs and goats. Meat-packing plant would principally process beef cattle. Feed lot to initially throughput 10,000 head annually, increasing to about 40,000 head in 20 years. Meat packing plant will initially have capacity to process about 20,000 head per year. Investor group consists of large U.S. company and leading Jamaican business and farm interests. Share in equity can be negotiated. Proposals from professional consultants wishing to locate in Jamaica for several years on a fee basis will also be considered. Office of International Investment, BIC-878, U.S. Department of Commerce, Washington, D.C. 20230. P-72489.

2015—YUGOSLAVIA—Leading producer of broilers and turkeys seeks equipment, related technology and joint venture proposals for **processing and packing chicken and turkey meat.** Currently produces 10,000 tons of meat annually. New slaughterhouse, scheduled for completion in mid-to-late 1973, will permit doubling of production. Eng. Alojz Vidic, Export-Import Manager, PIVKA, perutninski kombinat, Neverke 30, Pivka, P.O. Box 10, Yugoslavia. WTD. P-72497.

2020 —SWITZERLAND— Manufacturer and distributor of dairy-based desserts, cheese specialties and yogurts seeks manufacturing rights for **new, fresh dairy products.** Offers licenses for its line of **flan desserts.** Established in 1953, firm employs 92; reported annual sales in 1971 of approximately $8 million. Distributor in Switzerland for a number of French and Italian dairy producers. Andre Gsponer, Produits Laitiers Lausanne SA, ave. deLongemalle 21, 1020 Renens, Switzerland. WTD. P-72498.

2260, 2295 — SWITZERLAND — Holding company seeks licenses and know-how agreements for **coloring, coating and bonding elastic fabrics for technical applications; finishing, coating and impregnating artificial leather, tent fabrics and glass fiber fabrics; and all kinds of finishing processes for synthetic fabrics.** Will consider import of fabrics from U.S. for treatment and finishing in its three plants in Italy and Germany. H. C. Wirth, president, or Mr. Scheidegger, Vice-Director, Aiuto Aktiengesellschaft, Beutstweg 12, 8032 Zurich. WTD. P-72481.

2531 — SWITZERLAND — Manufacturer of metal and tubular steel furniture seeks to represent or manufacture under license **modern school and public building furniture, tables and chairs, and furniture with plastic seat shells.** Established in 1927, firm employs 40; annual sales $200,000. Marc Bouille, Zesar S.A., P.O. Box 25, 2501 Bienne. WTD. P-72490.

2600, 2700 — NEW ZEALAND — New company engaged in manufacture and distribution of **loose leaf binders, charting systems and similar office supplies** seeks to be agent or licensee for U.S. companies manufacturing similar products. **Stock pre-printed, continuous and snap-apart forms, peg-board systems and computer software** also of interest. Principal directors of company have extensive experience in this field. David J. McKay, managing director, Trade Loose-Leaf Ltd., P.O. Box 11037, Wellington. WTD. P-72499.

2821 — INDIA — Experienced chemical manufacturer seeks financial and technical collaboration for manufacture of **acrylic esters.** Has government letter of intent for annual production of 1650 metric tons each of ethyl and methyl acrylates using acrylonitrile and other raw materials from nearby government petrochemical complex. Details available from J. K. Merchant, development officer, Baroda Rayon Corp. Ltd., Great Western Bldg., 130-132 Apollo St., Fort, Bombay 1, India or Office of International Investment, BIC-878, U.S. Department of Commerce, Washington, D.C. 20230. WTD. P-72472.

2840—ISRAEL—Seeks licenses to manufacture **household chemical specialties; cleaning materials and accessories.** Desires know-how or royalty agreement with well-known brand name; possibly import American machinery and raw materials. Would temporarily serve as importing agent. Imports, formulates and distributes aerosol and other cleaning products. Dr. Y. Ben-Amotz, managing director, Pazchem Ltd., 74 Ibn Gvirol St., Tel Aviv. WTD P-72482.

3079—FRANCE—Producer of high precision plastic moldings, seeks licensing rights for the manufacture and sale of **disposable and other plastic articles made by injection molding.** Societe Franco-Suisse SINPAL, 68 La Bonhomme, France. WTD. P-72476.

3315, 3441 — LUXEMBOURG — Diversified metal and machinery group seeks collaboration with American firms interested in becoming established in the EEC. Company manufactures **nails, tubes and various iron and steel items.** Dr. Fernand Ensch, F & N Ensch, 13 rue M-Adelaide, Luxembourg. WTD. P-72502.

3442—FRANCE—Seeks license to manufacture **special industrial door system** consisting of linked folding panels which slide on guide rails and are housed horizontally under the ceiling. Presently manufacture industrial shutters, metallic carpentry, building hardware. Employs 50; capital $250,000. SOPRECA (S.A.), Route de Belfort, Chalezeule 25220 (Doubs), France. WTD P-72478.

3500 — BELGIUM — Seeks joint venture or license to diversify product line. Specializes in the supply of **spare parts and the manufacture of industrial machinery for paper and cardboard industries.** Also produces custom-designed equipment. Employs 43; capital $113,000. Xavier Van Migem, Vice Consul, Belgian Consulate General, Industrial Sec., 50 Rockefeller Plaza, Suite 1104, New York, N.Y. 10020, P-72487.

3531 — JAPAN — Seeks technical assistance for manufacture of **dredge shovels of more than 100-ton capacity.** Tsuji Industries, Co. Ltd., 177-2 Hikari-machi, Sasebo City. WTD. P-72474.

3545 — SWITZERLAND — Producer of communications equipment, precision tools and electronic controls seeks license or joint venture arrangement to manufacture **tools for machine tools and stamped parts including their surface treatment by copper, nickel and zinc plating.** Firm highly specialized in fine stamping tools, shaving of stamped parts and galvanoplasty. Ernst Schor AG, Bottingenstrasse 37, 3018 Bern. Attn: Fritz Schori, commercial director. WTD. Mr. Schori currently visiting U.S. and available for discussion at Chicago Machine Tool Show, VIP Message Center, Sept. 5 and 6; New York City, Roosevelt Hotel, E. 45 St. at Madison Ave., Sept. 11, 13 and 14. P-72501.

3548—UNITED KINGDOM—Long-established manufacturer of steel making equipment and gearboxes seeks license to produce **machinery for continuous casting of ferrous and non-ferrous metals; cold rolling mills; and straightening, finishing and inspection equipment for rolled products.** Also interested in cross licensing. C. M. Jackman, managing director, James Lumb & Sons Ltd., Dewsbury Rd., Elland, Yorkshire, England. P-72485.

3551—INDIA—Seeks technical assistance to manufacture **dairy machinery.** Envisages the manufacture of stainless steel high capacity milk pumps, flow meters, clarifiers, butter churns, plate tube evaporators, spray drying units and stainless steel pipes and tubings. V. S. Patel, general manager, New Field Engineering Co. (NFE), 702 Yashkamal, Sayaji Gunj, Baroda 5, India. WTD. P-72483.

3551—SOUTH AFRICA—Seeks exclusive licensing and distribution rights for the manufacture of **slaughterhouse and conveying machinery.** National Abattoir Projects Co. (Pty) Ltd., P.O. Box 6127, Dunswart, Transvaal. WTD. P-72484.

3559—ZAMBIA—Seeks joint venture for the purchase of a **complete range of machinery to manufacture ladies' sanitary pads.** Kanu S. Patel, Modern Clothing Factory, Ajanta Fashionwear Ltd., P.O. Box 560, Ndola. WTD. P-72475.

3559 — NETHERLANDS — Seeks license to manufacture **machinery for the production of building materials.** Presently designs and manufactures fully automatic machinery: wood-shaving machines and woodwool; cement tile-making machines. Employs 20. Fully equipped metalworking plant. Outlets are manufacturers of building materials. Mr. Tichelaar, Elten Engineering, 172 Baron van Nagellstraat, P.O. Box 15, Barneveld, Netherlands. WTD. P-72479.

3561 — GERMANY — Producer of industrial and automotive lubricating devices, grease guns and fittings seeks licenses **for spraying equipment to be used in automotive maintenance, spraying cleaning fluid, spraying protection varnish on chassis, and for such uses in the construction industry as spraying liquid plastic material on walls.** Firm employs 70 and has annual sales around $1 million. Willy Hallbauer KG, 6806 Viernheim, Industriestrasse 18, West Germany. WTD. P-72493.

3564—ARGENTINA—Licenses sought by producer of heat exchangers and industrial oil burners to manufacture **dust collectors and precipitators; also, industrial centrifugal blowers and axial fans.** C.A.M.E.I., S.C.A., Darwin 1129, Buenos Aires. WTD. P-72494.

3569—NETHERLANDS—Small machine manufacturer with service facilities is seeking licensing rights to manufacture **packaging machinery or equipment.** N.V. Machinefabriek M. Brouwer & Co., 34a Adamsweg, Hengelo, Overijssel. WTD. P-72477.

3573, 3841—SWITZERLAND—Importer and distributor of electronic office and home entertainment equipment seeks licenses to manufacture such **electronic office equipment as desk calculators, billing-accounting machines and inventory control systems; also, electronic medical equipment.** Firm has qualified electronic specialists among its 25 employees. Ample working capital reported available. Diodus Electronic AG, Alte Zurcherstrasse 43, 5401 Baden, Switzerland. Attn: Rolf Meyer. WTD. P-72488.

3581—NEW ZEALAND—Firm seeks licenses for **refrigerated food vending machines with heating ovens.** Has immediate requirement for new international class hotel; long range potential to equip hotels, office buildings, plants and for export sales to Australia. H. T. Whitcher, general manager, Precision Engineering Co., P.O. Box 381, Wellington. WTD on parent, Alex Harvey Industries Ltd. P-72480.

3585—MEXICO—Producer of refrigeration systems seeks license to manufacture **non-mechanical refrigeration systems utilizing non-expanding liquids in tubing built into the roofs of highway trailers.** System would be particularly suitable for long distance transport of milk. Ingenieros en Refrigeracion S.A., Sullivan 31-bis, 2° piso, Mexico 4, D.F., Mexico. Attn: Raul Bernal Munoz, project manager. P-72495.

3585, 3548—NETHERLANDS—Seeks licensing and distribution rights for the manufacture of **air conditioning equipment; hydraulic tools for garages.** Exports to ten countries; presently manufactures industrial central heating apparatus, hydraulic bending machines, steel plate radiators. Equipment suitable for steel plate up to five mms. thickness. C. J. van der Ven, Van Der Mark N.V., 75 Beneden Verlaat, Veendam, Netherlands. WTD. P-72473.

3662—FRANCE—Manufacturer of industrial tele-transmission and digital automation equipment seeks licenses to produce **integrated circuit identification systems for traffic control, including transponders and transceivers.** Firm is subsidiary of major firm in electric equipment industry and has annual sales of $8 million. Compagnie Generale d'Electronique Industrielle LEPAUTE, 63 Blvd. Bessieres, Paris 17. WTD. P-72496.

3662—UNITED KINGDOM—Major producer in field of communications and home entertainment seeks licenses to manufacture **electrical and electronic components applicable to the TV, telecommunications and instrumentation industries.** Employs more than 30,000. Office of International Investment, No. P-72491, BIC-878, U.S. Department of Commerce, Washington, D.C. 20230. WTD.

Licensing In U.S.

For additional information on opportunities to manufacture foreign firm's products in the U.S., write Commerce's Office of International Investment, BIC-874, U.S. Department of Commerce, Washington, D.C. 20230 (202-967-2248), referring to the appropriate file number.

AUSTRIA—A company wants to license or sell outright the know-how for its patented process used in the building construction industry. The process involves **production and installation of wooden ceilings and wooden wall coverings without the use of nails, brackets or adhesives.** File 2251

FRANCE—Firm which has subsidiaries producing metal frameworks and hardware for the building construction industry is offering for manufacture in the U.S. its newly developed **locking system for inside folding doors.** File 2252

GERMANY—A young firm is offering its know-how in the engineering and placement of **pneumatic conveying systems** in the chemical, chalk, cement, stone, and similar industries. File 2253

GERMANY—A subsidiary of a larger firm is interested in licensing the process it has developed for **manufacture of hydrazine as a salt** (hydrazine sulphate) or as a free base in the form of hydrazine hydrate. The process is licensed in Japan. File 2254

GERMANY—A leading manufacturer of calcium silicate brick-making machinery is offering license for its manufacture in the U.S. Included is **automatic equipment for weighing, dosing, lime treatment, brick pressing and materials handling.** File 2255

SWITZERLAND—This company, which made a name for itself in development of plastic tubes, offers a license for its **newly developed toy,** a construction kit made of plastic. It consists mainly of plastic clips, wheels, sticks and directions for the construction of cars, ferris wheels, merry-go-rounds and other items. File 2256

SWITZERLAND—A firm representing a well-known group of companies is offering for manufacture under license in the U.S. a new system for producing **formwork for concrete, tanks, boats and space structures.** It is made of plastic. The system is under patent. File 2257

SWITZERLAND—A small- to medium-size company is offering licensing rights for U.S. manufacture of its line of **hydraulic valves and pumps used in the field of process controls.** Included are cylinders used to absorb shocks and vibrations; directional valves electrically and hydraulically operated; pneumatic directional valves; and pressure reducing and quantity controlling valves and pumps. File 2258

SWITZERLAND—A medium-size company specializing in metal coating and the manufacture of household appliances offers for manufacture under license in the U.S. its patented **anti-adhesive and abrasion resistant plastic coating for metal surfaces.** The product is used for lining tanks and containers, household and commercial irons, water pumps, sanitary installations and other items. File 2259

SWITZERLAND—A small manufacturer of precision metalworking tools offers for manufacture in the U.S. its patented **countersink with spring-mounted pilot tip.** The tool was awarded a Gold Medal at the Brussels Inventors Fair. File 2260

SWITZERLAND—A firm doing R&D in metallurgy for the watch industry and manufacturing medical instruments, is offering for manufacture under license in the U.S. its patented **Universal Sine Device** used in machine shops. File 2261

SWITZERLAND — **A specialized R&D laboratory offers a license for its new **air improvement device—a special generator which charges the air in an enclosed space with negatively charged ions. These ions reduce the positive ions which occur under certain weather condi- cause or increase in the body such conditions as nervous tension, insomnia and migraine headaches. It is claimed the generator speeds up recovery time in hospitals, relieves respiratory ailments, and reduces absenteeism. File 2262

Foreign Trade Opportunities

These trade opportunities are based on reports received from the U.S. Foreign Service by the Business Opportunities Staff and other units of the Bureau of Domestic Commerce (BDC), U.S. Department of Commerce, Washington, D.C. 20230. The commodities in which foreign firms have interest are indicated by the five-digit numbers and commodity classifications which are from the Standard Industrial Classification (SIC) Manual and the Numerical List of Manufactured Products, 1967 Census of Manufacturers, used extensively by Government and industry.

U. S. firms should be aware that the listing in Commerce Today *of opportunities to trade in specific commodities and technical data does not necessarily imply approval of their export by the Deparment of Commerce pursuant to the Export Administration Act of 1969. Applicable export licensing regulations must be followed.*

Every effort is made to include only firms or individuals with good reputations. However, the Department cannot be responsible for any trade relations.

The mark (●) indicates that this trade opportunity is a request for bids by a foreign government agency. A (★) at the end means that additional information may be borrowed by U.S. firms from the individual division of BDC. To avoid delays, requests for loan material should specify the country, commodity and foreign government agency.

WTD indicates that a World Trade Directory Report containing financial and business background information on the foreign firm is available for $2 from the U.S. Department of Commerce, BIC-976, Washington, D.C. 20230.

Direct Sales

Specific foreign firms have expressed interest in direct purchases of the products below. See also the "Agencies" listing.

Broad woven fabric mills, cotton

22117 — SWEDEN — Finished cotton broad-woven fabrics including corduroy. Slitmanfabriken AB (importer, mfr., exporter), Kålgårdsgatan 28, S-733 00 Sala. WTD 8/72.

Broad woven fabric mills, manmade fiber, silk

22214—SWEDEN—Polyester blends with cotton fabrics. Slitmanfabriken AB (importer, mfr., exporter), Kålgårdsgatan 28, S-733 00 Sala. WTD 8/72.

22215—ZAMBIA—Direct from mills only, cloth suitable for men's trousers such as 100% wool or polyester rayon. Requests samples, price lists. Esquire Manufacturing Ltd., Attn: Mr. J. Martin (importer, dist., mfr.), P.O. Box 1955, Kitwe. WTD 6/72.

Floor covering mills, products

22710—JAPAN—Scatter rugs, synthetic throw rugs, bathroom and boudoir rugs, carpet tiles. Daito Sangyo Co., Ltd. (importer, dist.), 216 Yoshida-cho, Toyohashi 440. WTD 8/72.

Yarn, thread mills, products

22812 — JAMAICA — Cotton yarns, bleached, unbleached for knitting mills, in 20 lb. cones; annual requirement estimated at 500,000 lbs. Reva Garment Co. Ltd., Attn: Ralph Bardowell (mfr.), 18 Orange St., Kingston. WTD in prep.

Men's, Boys' furnishings

23279—SWEDEN—Men's jeans. Slitmanfabriken AB (importer, mfr., exporter), Kålgårdsgatan 28, S-733 00 Sala. WTD 8/72.

23280—SWEDEN—Men's work clothing. Slitmanfabriken AB (importer, mfr., exporter), Kålgårdsgatan 28, S-733 00 Sala. WTD 8/72.

Girls', children's, infants' outerwear

23690—SWEDEN—Boys' jeans. Slitmanfabriken AB (importer, mfr., exporter), Kålgårdsgatan 28, S-733 00 Sala. WTD 8/72.

Fabricated textile products

23940—ZAMBIA—Spiral reinforced flexible ventilation ducting for mining purposes. Nylon reinforced P.V.C. material tear resistant, flame resistant, acid resistant, rot proof and anti-static, externally supported by continuous plastic covered steel helix, fitted with flexible steel endrings which can be compressed for easier transportation and storage purposes. Lengths required are 25 ft. runs, in diameters ranging from 10 to 30 in. Requests catalogs, price lists ASAP. A. B. Hayward Ltd., Attn: B. Hillstrom, Man. Dir. (mfr.), P.O. Box 276, Luanshya. WTD in prep.

Sawmills, planing mills

24212 — SPAIN — Douglas-fir, pitch-pine and oak sawn and dressed lumber. Francisco Colomé Travé, Maderas Colomé (importer, dist., retailer), Torres y Bagés, 37, Granollers (Barcelona). WTD 7/72.

Millwork, veneer, plywood, prefabricated structural wood items

24325—ARGENTINA—Californian walnut timber. Correspondence requested in Spanish but English acceptable. Jose Rosovsky (importer, dist., agent), San Martin de Tours 2933, Buenos Aires. WTD in prep.

Converted paper, paperboard items

26490—JAPAN—Premium and gift items such as small pocket size products, for personal gift and/or ornaments for office desk, etc. Fuji World Services Corp. (importer), 1 Akasaka 9-chome, Minato-ku, Tokyo. WTD in prep.

Industrial chemicals

28197 — INDIA — Sodium formate, 3000 tons annually. Tamilnadu Chemical Products Ltd. (mfr.), 5K Veerabadhra Iyer St., Nungambakkam, Madras 34. WTD in prep.

Soap, detergents, cleaning preparations, perfumes, cosmetics

28445—SURINAM—Nail polish, lacquers, enamels in bulk. N. V. Handelmaatschappij H. I. Hussain Ali (importer, mfr., retailer), Jodenbreestraat No. 51, P.O. Box 912, Paramaribo. WTD 7/72.

Paints, varnishes, lacquers, enamels

28513—NIGERIA—Paints, varnishes. Abi Barbarinde Trading Stores (W.A.), Attn: A. Babarinde, mng. dir. (importer, dist.), 499 L.E.D.B. Shop Seriki Street, P.O.B. 4249, Lagos. WTD 1/72.

Luggage

31610 — NIGERIA — Luggage and travel goods (suitcases, briefcases, attache bags). Abid Babarinde Trading Stores (W.A.), Attn: A. Babarinde, mng. dir. (importer, dist.), 499 L.E.D.B. Shop Seriki St., P.O.B. 4249, Lagos. WTD 1/72.

Glass products

32316 — NETHERLANDS — Flexible fiberglass tubing for air ducting, similar industrial purposes; direct purchase and/or representations for Netherlands or Benelux countries; hose should be steel, covered with single or double layers of fiberglass impregnated with neoprene or silicone. Efka-Import (importer, dist., agent), 54 Mr. Troelstrastraat, Zandvoort. WTD in prep.

Steel mill products

●33100—IRAN—441 tons of Steel Round Bars and 265 tons of Iron Sheet. Iranian State Railways, Tehran. Tender No. 1264, 1265/51. Bid deadline October 15. Copies of specifications and invitation for bids available from Iron and Steel Program, BDC-786, U.S. Department of Commerce, Washington, D.C. 20230, ★(202-967-2613).

●33120 — INDONESIA — 2,000 to 4,000 long tons per annum of steel billets being sought for first deliveries beginning mid-1973 to Surabaya, Indonesia. A. E. Knight, Commercial Mgr., Vickers Hadwa P/L, 179 St. George's Terrace, Perth, GPO Box A41, Western Australia 6001, Australia.

33123 — SPAIN — Tin plate. ACOMER (importer, dist., agent), José Antonio, 86, Molina de Segura, Murcia. WTD 7/72.

33124—SWITZERLAND—Hot rolled medium plates, heavy plates, pickled or not pickled; merchant bars, structural sections, joists, galvanized, electrolytic sheets, plates. Requests offers from U.S. steel mills, international steel traders for factory shipments, surplus items, odd lots. W. Zeitelhack Stahlhandels AG, Attn: Mr. J.-M. Chessex (importer, dist.), Zweierstrasse 138, Postfach, CH-8036 Zurich. WTD in prep.

33126 — SWITZERLAND — Lengthwise, spiral welded and seamless steel pipe, tube. Requests offers for factory shipments, surplus items, odd lots from U.S. steel mills, international steel traders. W. Zeitelhack Stahlhandels AG, Attn: Mr. J.-M. Chessex (importer, dist.), Zweierstrasse 138, Postfach, CH-8036 Zurich. WTD in prep.

33127 — SWITZERLAND — Cold rolled sheets, pickled or not pickled, fine grained steel. Requests offers from U.S. steel mills, international steel traders for factory shipments, surplus items, odd lots. W. Zeitelhack Stahlhandels AG, Attn: Mr. J.-M. Chessex (importer, dist.), Zweierstrasse 138, Postfach, CH8036 Zurich. WTD in prep.

Rolling, drawing, extruding of nonferrous metals

●**33500—PARAGUAY—**Division de Adquisiciones, Departmento de Licitaciones, Ande, calle Padre Cardozo 560, Asuncion, invites bids for 3000 meters of power cable, single phase, copper, insulated, 15 kv, 500 square millimeters; 700 meters of control cable, multipole, copper insulated, 600 V; 150 meters of four wire cable, copper insulated, 600 V, and 90 terminators, single pole. Tender No. 58/72. Bid deadline September 14. Tender specications may be purchased from above office for $15.

Cutlery, hand tools, general hardware

34200—IRAN—Supply of 300 track jacks, five-ton capacity, lift height 400 mm. complete with operating handle. Tender No. 1361/51. Bid deadline Oct. 4. Iranian State Railways, Tehran. Copy of tender document available from Transportation Equipment Division/OBRA/BDC, U.S. Department of Commerce, 14th and Constitution Ave., NW., Rm. 1118, Washington, D.C. 20230, ★(212-967-3296).

34232 — NIGERIA — Agricultural edged hand tools, except scissors, shears. O.G.T. Group of Companies, Ltd., Attn: Okerentugba G. Thompson, Mng. Dir./Chairman (importer, dist.), 44 Balogun St., Lagos. WTD in prep.

Heating apparatus, plumbing fixtures

34336 — BOLIVIA — Incinerators. Correspondence requested in Spanish. E.M.C.I.C. Ltda. Constructora Industrial y Comercial (importer, constructing firm), Av. 16 de Julio "Alameda" Bldg., P.O. Box 1550, La Paz. WTD 4/72.

Fabricated structural metal items

34433—SWITZERLAND—Boiler plates. Requests offers for factory shipments, surplus items and odd lots from U.S. steel mills, international steel traders. W. Zeitelhack Stahlhandels AG (importer, dist.), Zweierstrasse 138, Postfach, CH-8036 Zurich. WTD in prep.

Metal stampings

34615—SPAIN—Stainless steel utensils. Correspondence requested in Spanish. Samaya, S.L. (importer, dist., mfr.), Escolano, 20, Valencia (1). WTD 8/72.

Fabricated metal products

34940—SPAIN—Valves, fittings for natural gas distribution installations. Intermar, S.A. (importer, dist.), Miguel Angel, 1 (bis), Madrid (10). WTD 7/72.

Construction, mining, materials handling machinery, equipment

35319 — ARGENTINA — Track-mounted trenching machines. Requests descriptive literature, price quotations. Ing. Efrain Redrij, Agua y Energía Eléctrica (government agency), Lavalle 1554, Buenos Aires.

35319—NIGERIA—Concrete block making machinery. O. G. Thompson, Chairman & Mng. Dir. (mfr.), O.G.T. Group of Companies Ltd., 44 Balogun St., Lagos. WTD in prep.

35340 — BOLIVIA — Elevators. Correspondence requested in Spanish. E.M.C.I.C. Ltda. Consturctora Industrial y Comercial (importer, constructing firm), Av. 16 de Julio "Alameda" Bldg., P.O. Box 1550, La Paz. WTD 4/72.

Metalworking machinery

35480 — ITALY — Punches for cutting cross on head of self tapping cross Phillips screws; screw driving insert bits (for cross Phillips screws). Invitea S.p.A. (mfr.), Via Leonardo da Vinci 39, Corsico (Milan). WTD in prep.

35482 — NIGERIA — Saws, power, hand, except chain saws adapted to 220 volts. O.G.T. Group of Companies, Ltd., Attn: Okerentugba G. Thompson, Mng. Dir./Chairman (importer, dist.), 44 Balogun St., Lagos. WTD in prep.

Special industry machinery

35513—YUGOSLAVIA — Equipment related technology for processing, packing chicken, turkey meat. Information should include: technical specifications of equipment, prices, credit terms, delivery times, basic characteristics of finished product. Also interested in purchase of related patents. Invites proposals of joint investment; will provide additional information upon request. PIVKA, perutninski kombinat, Attn: Eng. Alojz Vidic, Export-Import Mgr. (producer of broilers, turkeys), P.O. Box 10, Neverke 30. WTD in prep.

35521—IRAN—Equipment necessary to establish clothing factory for: suits, overcoats, raincoats, work clothes (overalls); to including all necessary machinery, including cutting and sewing machines, including services of one or two experts to install equipment, train operators. Assadollah Nasirpour (mfr., freight forwarder), P.O. Box 258, Khorramshahr. WTD 8/72.

35521 — ZAMBIA — Industrial knitting machines to manufacture material suitable for shorts, dresses, variety of cloth. Requests catalogs, price lists, together with landed costs to Zambia. Modern Clothing Factory, Ajanta Fashionwear Ltd., Attn: Mr. Kanu S. Patel (importer, dist., mfr.), P.O. Box 560, Ndola. WTD in prep.

35531 — NIGERIA — Woodworking machinery, including parts and attachments, for home workshops, garages, service shops, except power-hand tools. O.G.T. Group of Companies, Ltd., Attn: Okerentugba G. Thompson, Mng. Dir./Chairman (importer, dist.), 44 Balogun St., Lago. S WTD in prep.

35591—THAILAND — Fertilizing plant, using mono phosphate as raw materials. Production capacity 200,000 tons per yr. but can be expanded to 400,000 tons per yr. Requires technical assistance on turnkey basis; requests cost of plant and raw materials. Vorachid Industry Co., Ltd. (importer, mfr.), 208 Chakrapeth Rd., Bangkok. WTD in prep.

35593—ZAMBIA—Machine to manufacture domestic items such as plastic cups, plates, glasses. Copperbelt Afro-Plast, Attn: Mr. D. Petrides (importer, dist., mfr.), P.O. Box 370, Kitwe. WTD in prep.

35595 — ITALY — Machinery, equipment and know-how for manufacture of filters for air conditioning systems. Cofim, S.r.l. (mfr.), Via Settembrini 17, 20124 Milan. WTD in prep.

35595 — KOREA — Progressive pressing die for manufacture of brass flat wire zippers, automatic assembling machine for slider tab onto slider body. Requests catalogs, quotations. Hansa Corp., Attn: Kim Ju Sun (importer, dist.), C.P.O. Box 297, Seoul. WTD in prep.

35595 — PERU — Machinery to fabricate silico-calcareous bricks (or pozzolanic-calcareous bricks), with production capacity of 30,000 bricks in 8 hrs. shift; stone working machinery. Correspondence requested in Spanish. Junta de Rehabilitación y Desarrollo de Arequipa (Ing. Victor Oviedo R.) (mfr., industrial promoter), San Francisco 308, Apartado 737.

35595—SPAIN—Machinery to manufacture twist-off caps for glass containers, such as those used for baby foods, salad dressings, etc.; capacity 300/400 caps per min. Requests prices, description of machinery, catalogs. Pedro Carrasco Segundo (importer, dist.), Avda. Nicolás de las Peñas, 4, Murcia. WTD 2/72.

35595 — ZAMBIA — Complete range of machinery to manufacture ladies sanitary pads. Interested in either purchasing direct or entering into joint venture. Requests catalogs, price lists. Modern Clothing Factory, Ajanta Fashionwear Ltd., Attn: Mr. Kanu S. Patel (importer, dist., mfr.), P.O. Box 560, Ndola. WTD in prep.

General industrial machinery

35613 — BOLIVIA — Water systems, domestic, including pumps, pump jacks, cylinders. Correspondence requested in Spanish. E.M.C.I.C. Ltda. Constructora Industrial y Comercial (importer, constructing firm), Av. 16 de Julio "Alameda" Bldg., P.O. Box 1550, La Paz. WTD 4/72.

35615—INDONESIA—One hundred units of portable and fixed-type firepumps, capacity 500 to 1,500 gal. per min. Direct purchase & agency. P. T. Jaralim, Ltd. (importer, agent), Djalan Bunguran 27-A, Surabaya. WTD in prep.

Office, computing, accounting machines

35720 — GERMANY — Text processing machines. Offers with price quotation c.i.f. W. German ports. Direct purchase and agency. Louis Beaugrand K.G. (importer, dist.), 6050 Offenbach/Main, Jacques Offenbach Str. 12. WTD 8/72.

35720 — SWITZERLAND — Automatic typing, word processing systems, billing machines. Exclusive sales rights requested. Diodus Electronic AG (importer, dist.), Alte Zurcherstr. 43, CH-5401 Baden. WTD 8/72.

35741 — GERMANY — Electronic billing machines, 3 to 10 storages; electronic desk-top calculators. Offers with price quotation c.i.f. W. German ports. Direct purchase and agency. Louis Beaugrand K.G. (importer, dist.), 6050 Offenbach/Main, Jacques Offenbach Str. 12. WTD 8/72.

35741 — SWITZERLAND — Electronic, automatic desk calculators, printing, display type. Exclusive sales rights requested. Diodus Electronic AG (importer, dist.), Alte Zurcherstr. 43, 5401 Baden. WTD 8/72.

35741 — ZAMBIA — CBM-110 personal portable electronic calculator, or equal. Requests catalogs, price lists. Direct purchase & agency. Morry Getz Ltd., Attn: G. B. Lamb (importer, dist., agent), P.O. Box 2086, Ndola. WTD in prep.

35743 — SWITZERLAND — Electronic calculating, inventory control, accounting machines. Exclusive sales rights requested. Diodus Electronic AG (importer, dist.), Alte Zurcherstr. 43, CH-5401 Baden. WTD 8/72.

Service industry machines

35811—NIGERIA—Automatic merchandising machines, coin-operated, requirement for coffee, tea, chocolate, milk drinks; range of soft drinks. Direct purchase & agency. Ayodeji Amosu, Mng. Dir. (importer, dist., agent), Sentrycom Alarms (Nigeria) Ltd., 156 Herbert Macaulay St., Ebute Metta, Lagos. WTD in prep.

35851 — NIGERIA — Air conditioners, room and packaged units. O.G.T. Group of Companies, Ltd., Attn: Okerentugba G. Thompson, Managing Director/Chairman (importer, dist.), 44 Balogun St., Lagos. WTD in prep.

35853—NIGERIA—Sectional coolers or cooling rooms of prefabricated (factory produced) type, including walk-ins. G. Robertson, Dir., Rutam Ltd. (mfr.), 225 Apapa Rd., Iganmu. WTD 11/71.

35853—NIGERIA—Refrigeration equipment, commercial. O.G.T. Group of Companies, Ltd. Attn: Okerentugba G. Thompson, Mng. Dir./Chairman (importer, dist.), 44 Balogun St., Lagos. WTD in prep.

Electrical transmission & distribution

●**36100 —INDONESIA—** The Indonesian State Electricity Enterprise (PLN) requests bids for Electrical Distribution material and equipment for rehabilitation of electric distribution network in Djakarta Bid No. IDA-165 IND/3, bid deadline Oct 2. Specifications available for approximately $25 from Perusahaan Listrik Negara (PLN), Kantor Direktorat Pembangunan, Djalan Sunan Kgampel No. 1, Kebajoran Baru, Djakarta, Indonesia. Financed by IDA credit.

●**36100 — PAKISTAN —** Supply of one electric-driven test stand for testing woodward governors. Tender No. PR-I/71/PMP/15, bid deadline September 25. Invited by the Secretary, Government of Pakistan Railway Board, PWR Headquarters, Empress Road, Lahore. Tenders may be purchased from the Secretary, Railway Board, Lahore, for approximately $2.30 plus $1 for postage per set.

36112 — INDIA — Testing equipment to measure all parameters of transistors, diodes, FET and SCRs either with built-in equipment or with ancillary equipment; input power 200 to 250 V AC 50 Hz single phase. Specifications: leakage currents: 1 nano amp to 100 milli amp.; collector current: 1 micro amp to 10 ampere; base turn voltage: 1 mV to 3 V; base current: 1 nano ampere to 1 amp.; saturation voltages: 1 mV to 10 V; measuring conditions: DC, AC, or Pulsed with 80 and 300 microsecond pulse. Electronics Corp. of India, Ltd. (mfr.), Cherlapalli, Hyderabad 40, Andhra Pradesh. WTD 6/72.

Special Action

Each of the following trade notices is deemed to rate the special attention of American manufacturers and suppliers by the U.S. Commercial Officers overseas.

35511—YUGOSLAVIA—"Know-how", equipment for producing mineral and vitamin supplemented formula for infants, children to age two years, on basis of investor's existing output of dried, whole milk. Desired production capacity about 2,000 tons (output) per yr. Equipment for packaging dried formula in cardboard boxes with pouring spout needed. Investor stresses need for low total cost of production in order to sell at prices low enough to stimulate formation of mass domestic market. Existing products on local market excessively expensive, not pleasing to infants. Target date for completion of installation, 1974. Identical correspondence should be sent to IPZ (Industrijski Projektni Zavod, Trg Republike 1, Zagreb 41000 and Pionir, Županja 56270.

35512 — YUGOSLAVIA — Equipment for producing frozen french-fried potatos, potatos "Parisienne" at combined rate of 2,000 kilograms per hr. Installation should permit subsequent increase in production, and/or addition of other equipment for producing potatos "Dauphine", potato croquettes, mashed potatos (in flakes). Initial installation to include: two 10,000 ton cold storage units to hold raw potatos at 6-8 C; equipment for blanching, peeling, reblanching, pre-frying, cooling to 0 C and freezing to —20 C; packing and labelling equipment for packages of 0.5-1 kilogram and 10-15 kilograms; 20 ton refrigerated storage unit to hold finished goods at —20 C. Target date for completion 1974. Identical correspondence should be sent to IPZ (Industrijski Projektni Zavod), Trg Republike 1, Zagreb 41000 and to PIK Mladen Stojanovic, Bosanska Gradiska 78400.

35892—ISRAEL—Sewage purification (aeration) equipment, to include blowers, sewage pumps. Requests quotations, literature, delivery dates from manufacturers not represented in Israel. ISRAMEX Co. Ltd. (importer, dist., agent), 25 Arlozoroff St., P.O. Box 6014, Tel Aviv. WTD 2/71.

Electrical industrial apparatus

36220 — UNITED KINGDOM — Electric actuators for modulating duty (i.e. continuous operation in valve positioning); thrust output approximately 15,000 lbs. Kent Instruments Ltd., Attn: M. J. Norris, Design & Development Dept. (mfr.), Luton, Bedfordshire, England. WTD in prep.

Household appliances

36360—ZAMBIA—Industrial sewing machine. Requests catalogs, price lists, situation regarding availability of spares. Esquire Mfg. Ltd., Attn: Mr. J. Martin (importer, dist., mfr.), P.O. Box 1955, Kitwe. WTD 6/72.

Radio, television receiving sets

36510 — ARGENTINA — Phonograph (discs) recording equipment. Requests descriptive literature, price quotations. Estudios Continental (importer, recording company), San Martín 862, Local 124, Rosario, Province of Santa Fe. WTD in prep.

36514 — SWITZERLAND — Stereo preamplifiers, combination preamp-power amplifiers, high sensitivity FM tuners, AM/FM tuners, musical instrument, orchestra amplifiers, speaker systems, professional, amateur loudspeakers, audio-visual recorders, stereo pillows, ear phones, other high fidelity equipment, accessories. Exclusive sales rights requested. Diodus Electronic AG (importer, dist.), Alte Zurcherstr. 43, CH-5401 Baden. WTD 8/72.

36520 — ARGENTINA — Phonograph record blanks. Requests descriptive literature, price quotations. Estudios Continental (importer, recording company), San Martín 862, Local 124, Rosario, Province of Santa Fe. WTD in prep.

Communication equipment

36621—NIGERIA—Portable VHF two-way radio equipment, including taxi communication systems. Direct purchase & agency. Mr. Ayodeji Amosu, Mng. Dir. (importer, dist., agent), Sentrycom Alarms (Nigeria) Ltd., 156 Herbert Macaulay St., Ebute Metta, Lagos. WTD in prep.

36625—ITALY—Smoke detectors by ionization chamber for fire alarm systems; microwave detectors for burglar alarm systems. Fire Electronics S.r.l. (importer, agent), Via Bressanone 3, 00198 Rome. WTD 8/72.

Electronic components, accessories

●**36700 — KOREA —** The Government's Office of Supply has issued tender No. KFX 72128 P1 for the supply of electronic components and spare parts. Bid deadline is 2 p.m., September 22. Bid should offer electron tubes of various types, spares for VOR equipment FM transceiver and for ASR and SSR radars. Copies of tender announcement and specifications are available from the Korean Consulate General, Attention Procurement Officer, 9 East 80th, New York, N.Y. 10021, or on a short-term loan basis to firms located in the U.S. from the Communications-Electronics Division, BDC-720, U.S. Department of Commerce, Washington, D.C. 20230, ★(202-967-4822).

36740—GREECE—Semiconductor circuit networks (solid state integrated circuits); computer logic modules; monolithic integrated circuits (solid state). C.i.f. Piraeus price quotations. Corais S.A. (importer, dist., agent), 10 Stadiou St., Athens 133. WTD 8/72.

36792—FRANCE—Capacitors for electronic applications. Direct purchase & agency. Sermes-Electronique MS (importer, dist.), 11 Blvd. du Président Wilson, 67003 Strasbourg-Cedex. WTD 8/72.

36793 — FRANCE — Resistors for electronic applications. Direct purchase &

agency. Sermes-Electronique MS (importer, dist.), 11 Blvd. du Président Wilson, 67003 Strasbourg-Cedex. WTD 8/72.

36794—FRANCE — Coils, transformers, reactors, chokes for electronic applications. Direct purchase & agency. Sermes-Electronique MS (importer, dist.), 11 Blvd. du Président Wilson, 67003 Strasbourg-Cedex. WTD 8/72.

36795 — FRANCE — Electronic components, accessories; active, passive. Direct purchase & agency. Sermes-Electronique MS (importer, dist.), 11 Blvd. du Président Wilson, 67003 Strasbourg-Cedex. WTD 8/72.

36795—GREECE—Printed circuits. C.i.f. Piraeus price quotations. Corais S.A. (importer, dist., agent), 10 Stadiou St., Athens 133. WTD 8/72.

Railway equipment

•37400 —MEXICO— National Railroads of Mexico has called for bids on following equipment: axles and bearings, bid deadline Oct. 13; rails and fastenings, bid deadline Oct. 16; sleepers, bid deadline Nov. 13; gondolas, bid deadline Nov. 13; maintenance equipment, bid deadline Nov. 16. Specifications, quantities and documentation for bidding available from Subgerencia de Adquisiciones de Los Ferro Carriles Nacionales de Mexico, Av. Central No. 140 - 4 Piso, ALA "A", Mexico, D.F. A certified check for 100 pesos ($8) is required for the documentation.

Engineering, laboratory, scientific, research instruments

38112—INDIA—Instruments for measuring permeability of porous disc/hollow cylinders using air and water. Air testers should have pressure drop of 40 mm of water; normal measuring range 0-200 mm; volume of air from 700 litres per hr. per meter square to 2,400 liters; also comparable measuring range for water testers. Standard Batteries Ltd. (mfr.), Vakola, Santa Cruz, Bombay 55. Attn: Mr. R. S. Shanbhag. WTD in prep.

Jewelry, silverware, plated ware

39141 — SPAIN — Stainless steel ware. Correspondence requested in Spanish. Samaya, S.L. (importer, dist., mfr.), Escolano, 20, Valencia (1). WTD 8/72.

Manufacturing industries

39933—IVORY COAST—Advertising calendars, business gifts, pencils, novelties (ashtrays, bric-a-brac) made of china or glass. Requests catalogs, wholesale price lists. Correspondence requested in French. PUBLI-IVOIRE (importer, dist., retailer), Mme. Pommier, B.P. 1965, Abidjan. WTD in prep.

39999—SPAIN—Cigarette and cigar gas and electric lighters; tobacco pipes; cigarette and cigar holders; smokers' supplies. DAALCO (importer, dist.), Plaza Eduardo Marquina, 20, Valencia (14). WTD 8/72.

Iran Plans Criminology Lab

The Iranian Ministry of Justice intends to set up a criminology laboratory to include the following divisions: biology laboratory; blood testing laboratory; ballistics laboratory; hand writing, documents, and photographic laboratory; post mortem and toxicology laboratory; general chemical laboratory; criminology laboratory. Interested firms should contact the Ministry of Justice, Tehran, or the Tektron Co., 143 Abbasabad Ave., Tehran.

Agencies

Specific foreign firms have expressed interest in agency agreements for the products listed below. Exclusive agencies for these products are wanted only if specified.

Miscellaneous agriculture

01930 — GERMANY — Raw mink skins. Unipel, Willy Haeusler GmbH. & Co. KG. (importer, dist., agent), 6000 Frankfurt/Main, Niddastr. 60. WTD 8/72.

Canning, preserving foods

20341—ITALY—Dried beans, dried vegetables, dehydrated food products. Commercial Services International (dist.), Via Vincenzo Monti 56, Milan. WTD 7/72.

20370—ITALY—Frozen fruits, vegetables. Commercial Services International (dist.), Via Vincenzo Monti 56, Milan. WTD 7/72.

Grain mill products

20421 — FRANCE — Poultry feeds, prepared. COMAVI, S.A., Attn: Mr. Goethals (importer, dist. mfr.), 5, rue de Téhéran, 75008 Paris. WTD in prep.

20422—FRANCE—Livestock feeds, prepared. COMAVI, S.A., Attn: Mr. Goethals (importer, dist., mfr.), 5, rue de Téhéran, 75008 Paris. WTD in prep.

Beverage industries

20870 — GERMANY — Beer additive for stabilizing and conditioning. Intermag/GmbH. (importer, dist. mfr.), 6501 Bodenheim, Hilgestr. WTD 8/72.

Broad woven fabric mills, cotton

22110—CANADA—Denim, corduroy. Mr. S. Chalupovitsch, Chala Import Reg'd. (agent), 3069 Brighton Ave., Montreal 251, Quebec. WTD in prep.

22110—FRANCE — Broad woven fabric mills, cotton. Textile de Villiers (dist.), 37, rue de la Bassée, 59-Lille. WTD in prep.

Broad woven fabric mills, manmade fiber, silk

22210—FRANCE—Man-made fiber, silk. Textile de Villiers (dist.), 37, rue de la Bassée, 59-Lille. WTD in prep.

22211—SWITZERLAND—Quality decorative fabrics for tapestry purposes. Winter & Co., Attn: Miss Borer (importer, dist.), Nauenstr. 65, 4002 Basel. WTD in prep.

22214—CANADA—Polyester and cotton fabrics. Mr. S. Chalupovitsch, Chala Import Reg'd. (agent), 3069 Brighton Ave., Montreal 251, Quebec. WTD in prep.

Knitting mills, products

22511—SURINAM—Women's nylon full fashion hose, panty hose. Winkel Saba (importer, agent, retailer), Malebatrumstraat 7, P.O. Box 1035, Paramaribo. WTD in prep.

22522—SURINAM—Socks, athletic and crew for men finished and seamless made of cotton, wool, acrylic, other yarns, mixtures. Winkel Saba (importer, agent, retailer), Malebatrumstraat 7, P.O. Box 1035, Paramaribo. WTD in prep.

22542—SURINAM—Panties and bloomers, knit, women's and children's. Winkel Saba (importer, agent, retailer), Malebatrumstraat 7, P.O. Box 1035, Paramaribo. WTD in prep.

Yarn, thread mills, products

22810—FRANCE—Yarn spinning mills, cotton, man-made fibers and silk to be used in knitting and weaving mills. Textile de Villiers (dist.), 37, rue de la Bassée, 59-Lille. WTD in prep.

Textile goods

22952 — SURINAM — Leather, artificial except paper. Winkel Saba (importer, agent, retailer), Malebatrumstraat 7, P.O. Box 1035, Paramaribo. WTD in prep.

22953—THAILAND — Plastic laminated cloth, vinyl-nylon. Requests c.i.f. Bangkok prices, catalogs, brochures. The Srimaharaja Co., Ltd., Attn: Mr. Ah-Ram Hotikula (dist., retailer, mfr.), 36-38 Mansion 5, Rajdamnern Ave., Bangkok 2. WTD in prep.

Men's, youths', boys' furnishings, work clothing

23221—SURINAM — Shorts, underwear, knit and woven, men's and boys' made of woven and purchased knit fabrics. Winkel Saba (importer, agent, retailer), Malebatrumstraat 7, P.O. Box 1035, Paramaribo. WTD in prep.

Women's, misses', children's, infants' under garments

23421—SURINAM — Brassieres. Winkel Saba (importer, agent, retailer), Malebatrumstraat 7, P.O. Box 1035, Paramaribo. WTD in prep.

Fur goods

23710—GERMANY—Natural fur coats, jackets. Unipel, Willy Haeusler GmbH. & Co. KG. (importer, dist.), 6000 Frankfurt/Main, Niddastr. 60. WTD 8/72.

Fabricated textile products

23940 — ITALY — Camping tents. C.O.M.A.S. (importer, dist.), Via Vittorio Veneto 147, 27530 Belluno. WTD 1/71.

Wood products

24994—FRANCE—Cork insulating construction products. Metroco, Sarl (dist., mfr.), Ave. de la Gare, 78-Mere. WTD in prep.

Converted paper, paperboard items

26440 — SWITZERLAND — Washable wallpapers, similar materials preferably with special properties such as scratch proof, heat resistant. Winter & Co., Attn: Miss Borer (importer, dist.), Nauenstr. 65, 4002 Basel. WTD in prep.

26495—SURINAM—Teletype tapes and rolls (paper). Winkel Saba (importer, agent, retailer), Malebatrumstraat 7, P.O. Box 1035, Paramaribo. WTD in prep.

Industrial chemicals

28130—THAILAND—Refrigerant gases (Freon). Requests c.i.f. Bangkok prices, literature, samples. T. Thirachai Ltd., Part. (importer, dist.), 857 Left door of National Stadium, Pratumwan, Bangkok. WTD 2/72.

28152—SWITZERLAND—Dyes for plastic materials. Mineral-Chemie AG, Attn:

Mr. L. Schilliger (importer, agent), Talacker 42, P.O. Box, CH-8022 Zurich. WTD 8/72.

28162 — SWITZERLAND — Zinc oxides used by rubber industry. Mineral-Chemie AG, Attn: Mr. L. Schilliger (importer, agent), Talacker 42, P.O. Box, CH-8022 Zurich. WTD 8/72.

28180—SWITZERLAND—Specialty organic chemicals for small trade, building trade and industry in general. Schweizer & Co., Attn: Mr. B. Friedli, Partner (importer, dist., retailer), 3601 Thun. WTD in prep.

28181—SWITZERLAND—Additives for hypoide oil, flow improvers: pour point depressant for crude oils and middle destillates, furfural. Mineral-Chemie AG, Attn: Mr. L. Schilliger (importer, agent), Tallacker 42, P.O. Box, CH-8022 Zurich. WTD 8/72.

28182—SWITZERLAND—Butyl, isobutyl stearates, octyl stearates for plastics industry. Mineral-Chemie AG, Attn: Mr. L. Schilliger (importer, agent), Talacker 42, P.O. Box, CH-8022 Zurich. WTD 8/72.

28183 — SWITZERLAND — 12-hydroxystearic acids for petroleum industry, diethylene glycol monoesters, stearic acid, organic stabilizers (maleates laurates) stabilizers with FDA approvals, high temperature stabilizers, antistatics for plastics industry, accelerators, antioxidants for high temperature and nonstaining, active fillers, stearic acids for rubber industry. Mineral-Chemie AG, Attn: Mr. L. Schilliger (importer, agent), Talacker 42, P.O. Box, CH-8022 Zurich. WTD 8/72.

28185 — SWITZERLAND — Metal stearates particularly magnesium, sodium, barium, cadmium, zinc, lead for petroleum, plastics industries. Mineral-Chemie AG, Attn: Mr. L. Schilliger (importer, agent), Talacker 42, P.O. Box, CH-8022 Zürich. WTD 8/72.

28190—SWITZERLAND—Specialty inorganic chemicals for small trade, building trade, industry in general. Schweizer & Co., Attn: Mr. B. Friedli, Partner (importer, dist., retailer), 3601 Thun. WTD in prep.

28199 — SWITZERLAND — Magnesium oxides for rubber industry. Mineral-Chemie AG, Attn: Mr. L. Schilliger (importer, agent), Talacker 42, P.O. Box, CH-8022 Zürich. WTD 8/72.

Synthetic materials

28210—SWITZERLAND—Plastics materials, anti-corrosion, anti-pollution plastic specialties, for small trade, building trade, industry. Schweizer & Co., Attn: Mr. B. Friedli, Partner (importer, dist., retailer), 3601 Thun. WTD in prep.

28213 — THAILAND — Polyethelene and polypropylene pellets. Exclusive distributorship franchise required. Requests c.i.f. Bangkok prices, samples, literature. Chareonkasikum Ltd., Part. (importer, dist., agent), 1034 Songwad Rd., Bangkok. WTD in prep.

28219 — SWITZERLAND — Cartoxymethyl cellulose for plastics industry. Mineral-Chemie AG, Attn: Mr. L. Schilliger (importer, agent), Talacker 42, P.O. Box, CH-8022 Zürich. WTD 8/72.

28220 — SWITZERLAND — Different types of synthetic rubber. Mineral-Chemie AG, Attn: Mr. L. Schilliger (importer, agent), Talacker 42, P.O. Box, CH-8022 Zürich. WTD 8/72.

Drugs

28310—ITALY—Pharmaceutical chemicals. Commercial Services International (dist.), Via Vincenzo Monti 56, Milan. WTD 7/72.

28315 — FRANCE — Biological preparations for veterinary use. COMAVI, S.A., Attn: Mr. Goethals (importer, dist., mfr.), 5, rue de Téhéran, 75008 Paris. WTD in prep.

28349 — FRANCE — Veterinary pharmaceutical preparations. COMAVI, S.A., Attn: Mr. Goethals (importer, dist., mfr.), 5, rue de Téhéran, 75008 Paris. WTD in prep.

Soap, detergents, cleaning preparations, perfumes, cosmetics

28410 — SWITZERLAND — Detergents, sanitizers, novel cleaning preparations for small trade, catering trade, industry, automotive trade. Schweizer & Co., Attn: Mr. B. Friedli, Partner (importer, dist., retailer), 3601 Thun. WTD in prep.

28420 — SWITZERLAND — Specialty cleaning, sanitation products, household preparations, polishes, for small trade, catering trade, automotive trade, industry. Schweizer & Co., Attn: Mr. B. Friedli, Partner (importer, dist., retailer), 3601 Thun. WTD in prep.

28424—THAILAND—Chemicals for auto body polishing. Requests c.i.f. Bangkok prices, brochures, literatures. Kiat Nantawatana Co., Ltd. (importer, dist., agent), 64/14-17 New Phetburi Rd., Bangkok. WTD 6/72.

28412—SWITZERLAND — Coconut soap for plastics industry. Mineral-Chemie AG, Attn: Mr. L. Schilliger (importer, agent), Talacker 42, P.O. Box, CH-8022 Zürich. WTD 8/72.

28430 — SWITZERLAND — Petroleum sulphonate both synthetic and natural types, blowing agents, bactericides, emulsifiers for plastics industry and blowing agents for rubber industry. Mineral-Chemie AG, Attn: Mr. L. Schilliger (importer, agent), Tallacker 42, P.O. Box, CH-8022 Zürich. WTD 8/72.

28445 — SURINAM — Cosmetic, other toilet preparations. Winkel Saba (importer, agent, retailer), Malebatrumstraat 7, P.O. Box 1035, Paramaribo. WTD in prep.

Paints, varnishes, lacquers, enamels

28510 — SWITZERLAND — Protective paints, coatings, compounds; novelty products for building trade, automotive, small trade and industry. Schweizer & Co., Attn: Mr. B. Friedli, Partner (importer, dist., retailer), 3601 Thun. WTD in prep.

Agricultural chemicals

28711—THAILAND—Compound fertilizers (assorted formulation), N-P 16-20, 18-22, 20-20; double super phosphate 48 percent; rock phosphate 33-38 percent. Requests c.i.f. Bangkok prices, samples, literatures. Requirement 15,000 tons/year. Exclusive distributorship franchise required. Chareonkasikum Ltd., Part. (importer, dist., agent), 1034 Songwad Rd., Bangkok. WTD in prep.

28712—THAILAND—Ammonium nitrate 20.9 percent and 25.10 percent; potassium chloride 60 percent; urea 46 percent. Requests c.i.f. Bangkok prices, samples, literatures. Requirement 5,000 tons/yr. Exclusive distributorship franchise required. Chareonkasikum Ltd., Part. (importer, dist., agent), 1034 Songwad Rd., Bangkok. WTD in prep.

Chemical products

28992—SWITZERLAND—Butyl, isopropyl oleates, fatty acids for plastics industry. Mineral-Chemie AG, Attn: Mr. L. Schilliger (importer agent), Talacker 42, P.O. Box, CH-8022 Zürich. WTD 8/72.

Petroleum refining

29117 — SWITZERLAND — Lubricating oils, greases, made in refineries. Mineral-Chemie AG, Attn: Mr. L. Schilliger (importer, agent), Talacker 42, P.O. Box, CH-8022 Zürich. WTD 8/72.

Paving, roofing materials

29510 — SWITZERLAND — Paving, roofing mixtures for building trade, specialties only, for small trade, industry, automotive trade. Schweizer & Co., Attn: Mr. B. Friedli, Partner (importer, dist., retailer), 3601 Thun. WTD in prep.

Products of petroleum, coal

29920—SWITZERLAND—Lubricants for industry, small trade, automotive trade; protective oils and lubricants; anti-corrosion, anti-pollution specialties. Schweizer & Co., Attn: Mr. B. Friedli, Partner (dist., agent, retailer), 3601 Thun. WTD in prep.

29920 — SWITZERLAND — Lubricating oils, greases, made from purchased materials. Mineral-Chemie AG, Attn: Mr. L. Schilliger (importer, agent), Talacker 42, P.O. Box, CH-8022 Zürich. WTD 8/72.

29920 — THAILAND — Oil additives for internal combustion engines. Requests c.i.f. Bangkok prices, brochures, literatures. Kiat Nantawatana Co., Ltd. (importer, dist., agent), 64/14-17 New Phetburi Rd., Bangkok. WTD 6/72.

Fabricated rubber products

30690—JAPAN—Unique or new-to-market industrial, mechanical, laboratory, or medical rubber specialties. Manufacture under license acceptable. Kokoku Rubber Industry Co., Ltd. (dist., mfr.), 13-13 Higashi Ueno 1-chome, Taito-ku, Tokyo 110. WTD in prep.

30692—GERMANY—Rubber hose of all types for technical application. Karl Treske KG (dist., mfr., agent), 20 Päwesinerweg, 1 Berlin 20. WTD 8/72.

30695—GERMANY—Rubber seals, packing. Karl Treske KG (importer, dist., mfr.), 20 Päwesinerweg, 1 Berlin 20. WTD 8/72.

30698 — SWITZERLAND — Rubber cement (isocyante types). Mineral-Chemie AG, Attn: Mr. L. Schilliger (importer, agent), Talacker 42, P.O. Box, CH-8022 Zürich. WTD 8/72.

Plastic products

30790 — SWITZERLAND — Industrial, consumer, construction, packaging, commercial plastics products, genuine novelties only. Schweizer & Co., Attn: Mr. B. Friedli, Partner (importer, dist., retailer), 3601 Thun. WTD in prep.

30791—SWITZERLAND—Plastic sheets and foils, colored, for decorative purposes (also self adhesive) for use by construction industry or for sale in do-it-yourself stores. Winter & Co., Attn: Miss Borer (importer, dist.), Nauenstr. 65, 4002 Basel. WTD in prep.

30795—GERMANY—Plastic hose of all types for technical application. Karl Treske KG (dist., mfr., agent), 20 Päwesinerweg, Berlin 20. WTD 8/72.

30796 — GERMANY — Plastic panels to cover building facades. Karl Treske KG (dist., mfr., agent), 20 Päwesinerweg, 1 Berlin 20. WTD 8/72.

Leather tanning, finishing

31111 — SWITZERLAND — Finished leather for upholstery purposes. Winter & Co., Attn: Miss Borer (importer, dist.), Nauenstr. 65, 4002 Basel. WTD in prep.

31113—SWITZERLAND — High quality leathers for manufacture of garments. Winter & Co., Attn: Miss Borer (importer, dist.), Nauenstr. 65, 4002 Basel. WTD in prep.

Handbags, personal leather goods

31710 — SURINAM — Handbags, purses for ladies leather, plastic or other materials except precious metals. Winkel Saba (importer, agent, retailer), Malebatrumstraat 7, P.O. Box 1035, Paramaribo. WTD in prep.

Glass products, made of purchased glass

32316—FRANCE—Insulating glass units for structural insulation. METROCO, SARL (dist., mfr.), Ave. de la Gare, 78-Mere. WTD in prep.

Concrete, gypsum, plaster products

32722—NETHERLANDS—New systems for walls, floors, etc., in concrete; recent developments in building elements, related concrete products. Exclusive representations for Netherlands or Western Europe; also interested in licensing opportunities from U.S. firms. N.V. Werimex (importer, agent), 5a Zuiderstationsweg, P.O. Box 27, Bloemendaal. WTD 8/72.

Abrasive, asbestos, nonmetallic mineral products

32932—THAILAND—Gaskets, paper and asbestos fibre paper, packed in roll. Requests c.i.f. Bangkok prices, catalogs. Dhonburi Glory (1959) Ltd., Part. (importer, dist.), 910 King Taksin Rd., G.P.O. Box 2545, Bangkok. WTD in prep.

32950—SWITZERLAND — Mica powder for plastics industry. Mineral-Chemie AG, Attn: Mr. L. Schilliger (importer, agent), Talacker 42, P.O. Box, CH-8022 Zürich. WTD 8/72.

32961 — FRANCE — Mineral wool for structural insulation. METROCO, SARL (dist., mfr.), Ave. de la Gare, 78-Mere. WTD in prep.

Steel mill products

33122—INDIA—Steel alloy shapes of various types. Raj Kumar & Co. (agent), 43 Agakhan Bldg., Dalal St., Fort, Bombay 1. WTD 7/72.

33123—INDIA—Steel sheets, strips. Raj Kumar & Co. (agent), 43 Agakhan Bldg., Dalal St., Fort, Bombay 1. WTD 7/72.

33157 — THAILAND — Mesh wire cloth, aluminum, for insect screening, packed in roll. Requests c.i.f. Bangkok prices, catalogs. Dhonburi Glory (1959) Ltd., Part. (importer, dist.), 910 King Taksin Rd., G.P.O. Box 2545, Bangkok. WTD in prep.

Iron, steel foundries

33232—PAKISTAN—Wheels for railroad cars. Multi Traders (agent), P.O. Box No. 1351, 22 McLeod Rd., Lahore. WTD 10/71.

Rolling, drawing, extruding of nonferrous metals

33512 — INDIA — Copper rods, bars, shapes. Raj Kumar & Co. (agent), 43 Agakhan Bldg., Dalal St., Fort, Bombay 1. WTD 7/72.

33525 — INDIA — Aluminum rod, bar, shapes. Raj Kumar & Co. (agent), 43 Agakhan Bldg., Dalal St., Fort, Bombay 1. WTD 7/72.

Nonferrous foundries

33620 — INDIA — Casted phosphorous bronze rods. Raj Kumar & Co. (agent), 43 Agakhan Bldg., Dalal St., Fort, Bombay 1. WTD 7/72.

Cutlery, hand tools, general hardware

34295—THAILAND—Tools for refrigeration equipment repairs. Requests c.i.f. Bangkok prices, catalogs, brochures. T. Thirachai Ltd., Part. (importer, dist.), 857 Left door of National Stadium, Pratumwan, Bangkok. WTD 2/72.

Fabricated structural metal products

34411 — NETHERLANDS — Fabricated structural steel for buildings. N.V. Werimex (importer, dist., agent), 5a Zuiderstationsweg, P.O. Box 27, Bloemendaal. WTD 8/72.

34492—NETHERLANDS—Prefabricated metal parts or sections for buildings. Exclusive representations for Netherlands or Western Europe. N.V. Werimex (importer, dist., agent), 5a Zuiderstationsweg, P.O. Box 27, Bloemendaal. WTD 8/72.

Engines, turbines

35190 — ITALY — Marine engines, outboard motors. Motomar (importer), Via Valtellina 65, Milan. WTD 10/71.

Farm machinery

35220—SPAIN—Garden tractors, motor tillers. Mr. José B. Querol Cruset, Comercial e Industrial Vequer (importer, dist., agent), Diputación, 239 - 2° 4a. Letra B, Barcelona 7. WTD 8/72.

35227 — ITALY — Power mowers, grass cutters (with and without motors installed). C.O.M.A.S. (importer, dist.), Via Vittorio Veneto 157, 27530 Belluno. WTD 1/71.

Construction, mining, materials handling machinery, equipment

35319—NETHERLANDS—Dredging, related machinery, parts; parts, attachments of special durable alloys for dredging, earth-moving, mining, similar machinery. Exclusive representations requested for Netherlands or Western Europe. Also interested in direct purchase of metal components made to purchasing firm's own specifications and design, in newly-developed, specially-durable alloys. N. V. Werimex (importer, dist., agent), 5a Zuiderstationsweg, P.O. Box 27, Bloemendaal. WTD 8/72.

Metalworking machinery

35420—ITALY—Metalworking machine tools (coining presses, drawing and extruding machines, profile and pipe making machines, aluminum and lead sheeting presses, forging presses, die casting machines, cold drawing machines, twisting machines for cables and cords). Dr. Ing. Americo Volpe (dist.), Viale Gran Sasso 16, 20131 Milano. WTD in prep.

35422 — SWEDEN — Presses: excenter; hydraulic. Dahlins Maskiner AB (importer, agent), Svartviksvägen 21, S-161 32 Bromma. WTD 8/72.

35424 — SWEDEN — Parts for metal-forming machine tools. Dahlins Maskiner AB (importer, mfr., agent), Svartviksvägen 21, S-161 32 Bromma. WTD 8/72.

35482 — SPAIN — Power driven saws; handtools for farming, gardening. Comercial e Industrial Vequer, Attn: Jose B. Querol Cruset (dist., importer, agent), Diputacion, 239—2° 4a. Letra B., Barcelona 7. WTD 8/72.

35484 — SWITZERLAND — Automotive maintenance equipment. Schweizer & Co., Attn: Mr. B. Friedli, Partner (importer, dist., retailer), 3601 Thun. WTD in prep.

Special industry machinery

35595—THAILAND—Plastic laminating machines, 220-volt, 50-cycle. Requests c.i.f. Bangkok prices, catalogs, brochures. Asiatic Engineering Co., Ltd. (importer, dist., agent), 335-337 Vorachak Rd., P.O. Box 2499, Bangkok. WTD 11/71.

General industrial machinery

35611 — NETHERLANDS — Industrial process pumps in stainless steel, other metals such as nickel, titanium; exclusive representations for Benelux countries. N. V. Tarco, v/h The American Rubber Co. (importer, dist., agent), 107 Fregatstraat, Utrecht. WTD 7/72.

35611—THAILAND—Centrifugal pumps, diesel engine driven, 4" dia. Requests c.i.f. Bangkok prices, catalogs, brochures. Sang Thani Ltd., Part. (importer, dist., agent), 406-8 Mahachak Rd., Bangkok 1. WTD in prep.

35612—THAILAND—Deep well turbine pumps, automatic 1,450-1,475 RPM, 220-volt A.C., 50-cycle, for 120-foot deep well. Chada Silpa Ltd., Part. (importer, dist.), 12/1 Soi Thepleda 2, Huamark-Clongton Rd., Bangkok. WTD 7/72.

35621—PAKISTAN—Ball bearings, complete. Multi Traders (agent), P.O. Box 1351, 22 McLeod Rd., Lahore. WTD 10/71.

35622 — PAKISTAN — Roller bearings, complete. Multi Traders (agent), P.O. Box 1351, 22 McLeod Rd., Lahore. WTD 10/71.

35690 — NETHERLANDS — Packaging machinery, equipment, agencies, with or without licensing agreement, for Netherlands, West Germany. N. V. Machinefabriek M. Brouwer & Co., Attn: J. Heling Jr. (dist., mfr., agent), 34a Adamsweg, Hengelo (O.). WTD 12/71.

Office, computing, accounting machines

35733—ITALY—Solid state differential operational amplifiers, analog computing instruments. Società Lombarda di Televisione (dist.), Via Hoepli 10, Milan. WTD 6/71.

35741—SINGAPORE — Electronic calculating machines. Mr. CHEW Chee Seng or Mr. CHEW Chee Thong, Joint Managing Dir., Amateur Photo Stores (Pte) Ltd. (importer, dist., agent), Rm. 503, 5th floor, Chinese Chamber of Commerce Bldg., 47 Hill St., Singapore 6. WTD 7/72.

Service industry machines

35851 — NIGERIA — Air conditioners, room and packaged units. Wishes to deal only with firms offering one yr. guarantee on parts and five yr. on compressors. Falemi Pharmaceutical Chemists Ltd., Attn: G. O. Falemi, Man. Dir., 9/11 Gbajumo St., P.O. Box 3084, Lagos. WTD 2/72.

35854 — THAILAND — Compressors for refrigerators, 220-volt, 50-cycle. Requests c.i.f. Bangkok prices, catalogs, brochures. T. Thirachai Ltd., Part. (importer, dist.), 857 Left door of National Stadium, Pratumwan, Bangkok. WTD 2/72.

35855—THAILAND — Condensing units for refrigerators. Requests c.i.f. Bangkok prices, catalogs, brochures. T. Thirachai Ltd., Part. (importer, dist.), 857 Left door of National Stadium, Pratumwan, Bangkok. WTD 2/72.

35857—THAILAND—Spare parts for refrigeration equipment. Requests c.i.f. Bangkok prices, catalogs, brochures. T. Thirachai Ltd., Part. (importer, dist.), 857 Left door of National Stadium, Pratumwan, Bangkok. WTD 2/72.

35891 — SWITZERLAND — Advanced catering equipment, service industry machines. Schweizer & Co., Attn: Mr. B. Friedli, Partner (importer, dist., retailer), 3601 Thun. WTD in prep.

35892 — SWITZERLAND — Pollution control equipment, apparatus, novelty products only, water softeners, purification systems, air pollution control systems, waste control equipment, noise control apparatus. Schweizer & Co., Attn: Mr. B. Friedli, Partner (importer, dist., retailer), 3601 Thun. WTD in prep.

35893 — ISRAEL — Industrial vacuum cleaners, wet/dry, portable, medium-size, motor capacity of up to 10 hp. Exclusive agency. Bintex Agences Generales (importer, distributor/wholesale, agent), P.O. Box 39031, Tel Aviv. WTD 11/71.

Machinery

35992 — NETHERLANDS — Flexible metal hose, expansion joints. Exclusive representations for Benelux countries. N. V. Tarco, v/h The American Rubber Co. (importer, dist., agent), 107 Fregatstraat, Utrecht. WTD 7/72.

Electrical industrial apparatus

36240 — THAILAND — Ignition contact points for automotive use. Requests c.i.f. Bangkok prices, samples, catalogs. Dhonburi Glory (1959) Ltd., Part. (importer, dist.), 910 King Taksin Rd., G.P.O. Box 2545, Bangkok. WTD in prep.

Household appliances

36321—NEW GUINEA—Household refrigerators; electrical wiring 240 V, 50 cycles, 3-pin plug. Requests price lists, catalogs. S. O. Svensson (N.G.) Ltd., Attn: H. H. Bowan (importer, agent, retailer), P.O. Box 705, Port Moresby, T.P.N.G. WTD in prep.

36322 — NEW GUINEA — Household freezers; electrical wiring, specifications should conform to Australian standards, 240 V, 50 cycles, 3-pin plug. Requests price lists, catalogs. S. O. Svensson (N.G.) Ltd., Attn: H. H. Bowan (importer, agent, retailer), P.O. Box 705, Port Moresby, T.P.N.G. WTD in prep.

Radio, television receiving sets

36514—ITALY—Stereo amplifiers, stereo tuners-amplifiers, acoustical boxes, stereo tape recorders. Gammavox (dist.), Via P. Calvi 16, 20129 Milan. WTD in prep.

36514—THAILAND—Juke boxes, coin-operated. Requests c.i.f. Bangkok prices, catalogs, brochures. Thai Siri Miller Ltd., Part., Attn: Mr. Amnart Bunnak (importer, dist.), Soi Chit Aree, Lard Prao Rd., Bangkok. WTD 8/72.

Communication equipment

36611—NIGERIA—PAX equipment for 25, 50 and 10 lines, and two 50 lines; PABX for 2+6, 3+10, 4+20, 4+25 and 5+20. Power characteristics 220 volts. Mr. Ayodeji Amosu, Man. Dir. (importer, dist., agent), Sentrycom Alarms (Nigeria) Ltd., 156 Herbert Macaulay St., Ebute Metta, Lagos. WTD in prep.

36620—ITALY—Special electronic components for color television manufacturing industry. Società Lombarda di Televisione (dist.), Via Hoepli 10, Milan. WTD 6/71.

36622—SWEDEN—Radio communication equipment, such as land mobile, marine, and ground-to-air. Mikeva Industrial Electronics AB (importer, agent, engineering), Stångholmsbacken 75, S-127 40 Skärholmen. WTD 8/72.

36623 — GERMANY — Communications equipment for yachts, motor boats. Seehandel A. Schadagies (importer, agent), 6704 Mutterstadt, Doppelbrett 11. WTD 8/72.

36623—NIGERIA—Innovations in alarm and signal systems, electric and electronic. Mr. Ayodeji Amosu, Man. Dir. (importer, dist., agent), Sentrycom Alarms (Nig.) Ltd., 156 Herbert Macaulay St., Ebute Metta, Lagos. WTD in prep.

36623—SPAIN—Electric alarm systems, devices. Sistemas y Organizaciones de Seguridad, S. A. (importer, dist., mfr.), Aribau, 300-bajos, Barcelona 6. WTD 7/72.

36625—ISRAEL—Safety apparatus including electronic cells, devices and equipment for protection of workers in industrial plants, bank personnel, etc. Exclusive agency. Bintex Agences Generales (importer, distributor/wholesale, agent), P.O. Box 39031, Tel Aviv. WTD 11/71.

36626—SINGAPORE—Door closers and checking devices, electronic. CHEW Chee Seng or CHEW Chee Thong, Joint Managing Dirs., Amateur Photo Stores Pte. Ltd. (importer, dist., agent), Rm. 503, 5th floor, Chinese Chamber of Commerce Bldg., 47 Hill St., Singapore 6. WTD 7/72.

Motor vehicles, equipment

37141—AUSTRALIA—Carburetor parts, kits; speed governors, hoof or similar; clutch assemblies (car and truck); clutch plates; clutch rebuilding parts; hydraulic brake master and wheel cylinder assemblies; Universal joint repair kits; universal joint components, flanges, yokes, for Spicer, Mechanics, Blood Bros.; transmission gears, car and truck; transmission parts for fork lift trucks etc., for Hyster, Clark. Austral Import & Export Co. Pty. Ltd. (importer, agent), 34 Thornton Crescent, Mitcham, Victoria 3132. WTD 3/72.

37141 — SWITZERLAND — Automotive accessories, genuine novelties only. Schweizer & Co., Attn: Mr. B. Friedli, Partner (importer, dist., retailer), 3601 Thun. WTD in prep.

Railroad equipment

37411—PAKISTAN — Locomotives, new and rebuilt, railroad service. Multi Traders (agent), P.O. Box 1351, 22 McLeod Rd., Lahore. WTD 10/71.

37413—PAKISTAN—Parts for locomotives, for sale separately. Multi Traders (agent), P.O. Box 1351, 22 McLeod Rd., Lahore. WTD 10/71.

Motorcycles, bicycles, parts

37510 — NEW ZEALAND — Mini-cycles, engine capacity 200 cc or less, wheel size under 16 in. Preferably suitable for both trail, street. A. C. Paterson & Son Ltd., Attn: Mr. Baigent, Mng. Dir. (importer, dist., agent), P.O. Box 9238, Wellington, 1. WTD 8/72.

Engineering, laboratory, scientific, research instruments

38111 — GERMANY — Nautical instruments, i.e. direction finders, echo sounders, weather instruments for yachts, motor boats. Seehandel A. Schadagies (importer, agent), 6704 Mutterstadt, Doppelbrett 11. WTD 8/72.

38112 — ITALY — Hospital laboratory equipment. IRIS (dist.), Via Lamarmora 20, Milan. WTD in prep.

Instruments for measuring, controlling, indicating physical characteristics

38210 — ITALY — Nuclear medical scanning systems for clinical applications; scalers, spectometers, H. V. power supplies, scintillation detectors, rate meters; well counting systems for analysis of radioactive specimens; instruments for environmental (air and water pollution) testing. Società Lombarda di Televisione (dist.), Via Hoepli 10, Milan. WTD 6/71.

38213—ITALY—Fluid power equipment (pumps, motors, valves). UTAI (agent), Via Telesio 2, 20145 Milano. WTD 10/71.

38216—ITALY—Nuclear automatic scanners. Società Lombarda di Televisionne (dist.), Via Hoepli 10, Milan. WTD 6/71.

38216—ITALY—Non destructive ultrasonic testing equipment. D. Gagliani (mfr.), Piazza Luigi di Savoia 24, 20124 Milan. WTD in prep.

Optical instruments, lenses

38311—ITALY—Motion picture projector reflecting (cold) mirrors. Quantity: over 100,000 units annually. Ing. Giovanni Garzino (mfr., agent), Corso Francia 97, Torino 10138. WTD in prep. WTD of 3/3/70 being revised.

Surgical, medical, dental instruments

38410 — ITALY — Resuscitation equipment, surgical instruments and apparatus. IRIS (dist.), Via Lamarmora 20, Milan. WTD in prep.

Photographic equipment

38611 — NETHERLANDS — Photographic equipment, attachments, accessories. Exclusive representations for Netherlands or Benelux countries. C. Boonen & Co. N.V. (importer, dist., agent), 14 Herengracht, Amsterdam. WTD 8/72.

Greek Contractor Seeks Crane

An Athens builder has contracts for sea berth construction and desires to purchase a used or new non-propelled 150-ton-crane revolving 360°, 10 meters radius, preferably floating or otherwise suitable for installation on a locally manufactured barge. Contact: Drassis, S.A., 8 Omirou St., Athens.

Other Foreign Official Tenders

GREECE—The Ministry of National Economy has issued tender no. 810/72 for the supply and installation of a 100-kw. short-wave transmitter. Bid deadline Sept. 27. Tender documents are available on a short-term loan basis to firms located in the U.S. from the Communications-Electronics Division, BDC-720, U.S. Department of Commerce, Washington, D.C. 20230 ★202-967-4822.

GUATEMALA — INDECA, the agricultural price stabilization agency of Guatemala, is calling for bids for the construction of **regional grain silos** in Quezaltenango (10,000 m. tons), Retalhuleu (10,000 m. tons), Jutiapa (3,900 m. tons), Tactic (3,900 m. tons), and Los Amates (3,900 m. tons). Companies bidding must be already inscribed in INDECA's prequalification registry. Bid deadline is 9 a.m., Sept. 20. The invitations for bids, bidding documents and complete specifications are available in exchange for one 150-yard roll of heliographic paper and 1,000 sheets of 80 gram bond paper from the Instituto Nacional de Comercializacion Agricola-INDECA, 11 Calle 3-23, Zona 9, Guatemala City, Guatemala, Ing. Roberto Osorio M.—General Manager. Correspondence preferred in Spanish.

GUATEMALA—INDECA, the agricultural price stabilization agency of Guatemala, requests bids for the construction of **17 regional grain purchasing centers.** The silo capacities at these centers range from 156.2 to 2,500 metric tons. Bid deadline is 9 a.m., Sept. 26. Companies bidding must be already inscribed in the prequalification registry of INDECA Instituto Nacional de Comercializacion Agricola, 11 Calle 3-23, Zona 9 Guatemala City. Invitations for bids, bidding documents and complete specifications are available in exchange for one 150-yard roll of heliographic paper and 1,000 sheets of 80 gram bond paper from INDECA. Correspondence is preferred in Spanish.

IRELAND — The Department of Posts and Telegraphs has extended the bid deadline on tender No. C 610/9/28 for **automatic telephone exchanges** from Sept. 28 til 4 p.m., on Oct. 27.

MEXICO—The Marine Secretariat seeks registration of firms interested in bidding on the construction of a **warehouse complex** in the Port of Manzanillo. The project involves 2,400 square meters of warehouses, 800 meters of railways and 8,000 square meters of paved yards. Completed registration forms should be returned to the Secretariat by Sept. 23. Detailed information and registration forms are available from the Direccion General Obrar Maritimas, Secretaria de Marina, Insurgentes Sur No. 465 - 6 Piso, Mexico, D.F.

MEXICO—The Secretariat of Hydraulic Resources call for interested firms to register for the construction of **nine deep wells** in the municipality of Tepeyahualco, Puebla. The wells are each 100 meters deep, 508 mm. (20") in perforating diameter and 356 mm. (14") in casing diameter. The work is expected to be completed within seven months of the letting of the contract, which is expected by mid-November. Applications for registration and project details are available from Direccion General de Obras de Riego, DeSarrollo Rural, Direccion de Construccion, Departmento De Contratos Y Adquisiciones, Paseo de la Reforma No. 69, 7 Piso, Mexico, D.F. Firms already registered for previous contracts remain registered for this project but must present the *registro unico de contratistas* to theOficina de Registro E Informacion, Antonio Caso No. 19, 5 Piso, Mexico, D.F.

MOZAMBIQUE—The Civil Aeronautical Service has issued a tender for the supply of **communications equipment and ancillary equipment.** Bid deadline is 9:30 a.m. (Lisbon) or 10:30 a.m. (Lourenco Marques), Oct. 3. Bid should offer four radio beacons, one transmitter, two receivers, two transmitters and four receivers HF/Blu/Bli type, one telegraphic commutator, three teleprinters, ten automatic transmitting machines, receivers-transmitters HF/Blu, and one tape recorder. Copies of tender announcement and specifications are available only from the Mozambique Civil Aeronautical Service, Alameda Gago Coutinho, Lourenco Marques (8), Mozambique or may be consulted in Lisbon at A Gencia Geral do Ultramar. Documents cost $3.50 plus mailing costs; interested bidders must make a qualifying deposit of $3,500 in any Mozambique Government Treasury or Banco Nacional Ultramarino.

PHILIPPINES—The Bureau of Public Highways expects to invite bids from prequalified contractors for the construction of a **two-lane highway** between Cotabato City and General Santos City in Mindanao Island under any or all of the following contract segments: Segment I—Cotabato City-Labolabo 66 km., Segment II—Labolabo-Marbel 82 km., Segment III—Marbel-General Santos City 66 km. Segment I includes 60 culverts and 30 meters of bridges. Segment II has 100 culverts and no bridges and Segment III has 100 culverts and 250 meters of bridges. All segments will consist of Class B gravel base (15 cm. thick), soil cement sub-base (15 cm. thick), and cement concrete pavement (20 cm. thick). Prospective bidders should contact the Commissioner, Bureau of Public Highways, Second St., Port Area, Manila, who will provide the prequalification questionnaire. Prequalification deadline is Sept. 30. Bid documents and specifications will be provided later to prequalified firms. Project will be financed by the Asian Development Bank.

SOUTH AFRICA — The South African Iron and Steel Industrial Corp., Ltd. has issued tender No. SA-17 for the supply and installation of **communications and signaling equipment and power suppliers.** Bid deadline is Oct. 27. Bid should offer a communications system utilizing either carrier on cable or microwave equipment and a signaling system and centralized traffic control of the main line and local control of the terminal yards. Copies of tender announcement and specifications are available only from: Head, Capital Buying, South African Iron and Steel Industrial Corp., Ltd., P.O. Box 450 Pretoria for $330, which will be refunded only on receipt of a bona fide tender.

MALAYSIA—The Government of Malaysia is inviting tenders for the supply of **telecommunications equipment geared for aeronautical services.** Equipment should include long-range high-frequency transmitters and receivers, high-frequency weather information broadcasting transmitters, voice frequency telegraph equipment and accessories. Bid deadline Sept. 30. Tender documents may be obtained from Ketua Pengarah Talikom, Ibu Pejabat Talikom, Jalan Bukit Nanas, Kuala Lumpur for about $17, or on a short-term loan basis to firms located in the U.S. from the Communications-Electronics Division, BDC-720, Rm. 1112. U.S. Dept. of Commerce, Washington, D.C. 20230 (202-967-4822).

IRELAND—The Dept. of Posts and Telegraph has issued Tender No. C/610/9/29 for the supply and installation of an **automatic trunk telephone exchange** at Dame Court, Dublin. Bid deadline Sept. 29. Copies of tender announcement and specifications are available from the Engineer-in-Chief, Dept. of Posts and Telegraphs, Marlborough St., Dublin, or on a short-term loan basis to firms located in the U.S. from the Communications-Electronics Division, BDC-720, Rm. 1112, U.S. Dept. of Commerce, Washington, D.C. 20230 ★(202-967-4822).

JORDAN — The Jordan Electricity Authority (JEA), Hussein Thermal Power Station has called for bids to supply two 33 megawatt steam unit installations. JEA has applied to the International Development Assn. for assistance in financing the installation, which will consist of two steam driven turbo-generators to be located adjacent to the refinery site northeast of Zerqa. The boilers will be residual-oil fired. the condensing system will be of the closed type, utilizing an air-cooled condenser. Target date for trial operation is July 1976, commercial operation October 1976. The principal contracts to be awarded will be for mechanical and electrical equipment and include: Contract A provides for the manufacture, supply, fabrication, transportation, installation and testing of all mechanical equipment for the boiler house side of the installation, including the boilers, all associated pumps, control equipment and necessary piping; Contract B, mechanical equipment; Contract C, electrical switchgear; Contract D, transformers; Contract E, air cooled condensers; Contract F, control centers, wiring, conduit, lighting fixtures, intercommunication equipment and other machinery.

Bids will be accepted for the above with a total allowed bidding time of eight months. Specifications will be available in early September for a non-returnable fee of $250 from General Manager, Jordan Electricity Auth., P.O. Box 2310, Amman. Jordan. Copy to the Kuluian Corp., 1845 Walnut St., Philadelphia, Pa. 19103. Attention: Mr. T. C. Rudolph.

COLOMBIA—Empresas Publicas de Medellin has issued invitation to bid for construction of the **earth-rock fill, Santa Rita Dam,** State II.

Empresas Publicas de Medellin is negotiating a loan with the World Bank for construction of the project. Construction will start at the beginning of 1973 and should be completed before May 30, 1975. Bids will be considered only from contractors who in the last ten years have successfully executed the construction of at least one dam similar in size, or larger, than the Santa Rita Dam, and have adequate financial, technical, and administrative capacity to execute such work. The tenders shall be delivered to the office of: Gerencia Tecnica, Empresas Publicas de Medellin, Apartado Aereo 940, Medellin, before 5:15 p.m., October 24. Empresas Publicas de Medellin will not be responsible for delays or loss of tenders sent by mail. The Bid Documents may be obtained at the above address for $100, or 2,200 Colombian pesos, first copy, and $50 or 1,100 pesos for each additional copy. These amounts will not be refunded.

Algeria Seeks Consulting Firms For Bottle Plants

The National Oil and Gas Corporation (SONATRACH) has issued invitations for proposals for the study, design and assistance in start-up and operation of plants for P.V.C. bottles and cans for cooking oil and P.V.C. bottles and bottling of spring water. Interested bidders should propose the following: (a) study of plant, (b) supply of all equipment, (c) transportation of equipment from port to plant site, (d) design of civil engineering work and construction of buildings, (e) assemblage of equipment, (f) training of personnel, (g) technical assistance for operating plant. The agency to be contacted is: Monsieur le Chef du Projet Plastiques, 17, rue de la Liberté, Algiers, Algeria. The envelope should be marked: "A l'attention de Monsieur Ahmed Ghozali, President Directeur General." "Ne pas ouvrir—Confidentiel." Bid deadlines are Sept. 15 and Nov. 15. A copy of each of the bid dossiers in French is available for review in the office of the Construction, Water Resources & Engineering Division, Rm. 2119, U.S. Dept. of Commerce, Washington, D.C., 20230.

South Africa Seeks Bids For Construction Of Jetty

The South African Iron and Steel Industrial Corporation Ltd., a Government-owned corporation, is asking for bids for the construction of an ore-loading jetty at Saldanha Bay Harbor, Cape Province, South Africa, known as the Sishen-Saldanha Project. The bid deadline is October 27.

The enquiry documents (Enquiry SA 34) are obtainable from: The Head, Capital Buying, South African Iron and Steel Industrial Corporation Ltd., P.O. Box 450, Pretoria, Republic of South Africa. There is a required deposit of R250.00 (US$330.00), which will only be refunded upon receipt of a bona fide tender for the complete plant.

Mexico Desires Contractors For Many Construction Projects

The Secretariat of Hydraulic Resources of Mexico has called for registration of contractors from countries that are members of the Inter-American Development Bank. Applications should be directed to Ing. Juan Garcia Jarque, Jefe del Departamento de Contratos, Direccion de Construccion, Secretaria de Recursos Hidraulicos, Paseo de la Reforma No. 69-10 Piso, Mexico, D. F.

Contractors may then be in a position to tender for several irrigation works.

Future Construction Abroad

PARAGUAY — The Economic Council recommended on August 2 that a call for bids on financing and construction of a **new air terminal at Asuncion** be issued in 90 days. The terminal would be built at the Presidente Stroessner International Airport (see *Commerce Today*, June 12). Bidding will be open to both Paraguayan and foreign firms. Interested U.S. firms should, if possible, be prepared to make package offers, including both construction and arrangements for financing. Contact: Excmo. Senor Ministro, General de Division (SR) Don Marcial Samaniego, Ministerio de Obras Publicas y Comunicaciones, Calle General Diaz y Alberdi, Asuncion.

VENEZUELA—The Ministry of Public Works has announced plans for the **construction of 14 hospitals and three health centers**, representing a total investment of $79.6 million. The plan would add approximately 4,000 new hospital beds. Two hospitals are to be constructed in Caracas and the others in the interior. Total planned investment for equipment is not yet known.

ALGERIA—The Foreign Ministry is seeking U.S. firms capable of assisting the Government in carrying out its construction material program. Four types of firms needed are: 1) **geological companies** able to undertake studies, make sample analysis and reserve estimates, and plan construction of several Algerian cement plants; 2) **industrial firms** able to build turnkey cement plants; 3) **engineering firms** able to advise in construction material field and 4) companies specialized in developing industrial units for manufacture of products used in **prefabricated housing.** Contact: U.S. Interests Section, Villa Mektoub, 4 Chemin, Cheikh Bachir Brahimi, Algiers, Algeria.

INDONESIA—Perusahaan Umum Otorita Djatiluhur is calling for prequalification of contractors for two irrigation projects to rehabilitate the Djatiluhur Irrigation System under an International Development Association credit. Application/questionnaire may be obtained by mail or in person from Perusahaan Umum Otorita Djatiluhur, Projek Irigasi Djatiluhur, Djalan Pattimura 20/7 Kebajoran Baru, Djakarta, and must be returned in five copies not later than October 1, 1972. Invitations for bids for the two contracts will be issued or or about January 1. Contracting firms already prequalified last year by the Perum Otorita Djatiluhur wishing to be considered for the above contracts must submit a new application/questionnaire.

IVORY COAST — The Government of Ivory Coast is **financing part of the hotel and resort construction** for tourist development. The 1971-75 Development Plan calls for construction of 1,900 hotel rooms, and 3,900 between 1976 and 1980. Present and projected touristic development in Ivory Coast offer various possibilities for American firms—in investment, management and supply.

HONG KONG — The Government has issued a public invitation to submit preliminary proposals for the Hong Kong Subway System, a $1.1 billion project. This is a "general invitation to all financial interests, groups of construction companies, and manufacturers of equipment." All proposals would be strictly confidential and Hong Kong has "no fixed view on the manner in which the subway should be financed, constructed, or operated." Earliest submission is desirable and deadline for proposals is mid-October. All inquiries should be addressed to the Director of Mass Transit Studies, Public Works Dept., Murray Building, Hong Kong.

YUGOSLAVIA—Detailed foreign capital costs and anticipated construction requirements of the Trebisnjica Power System are: 380 kw. transmission line, $2.25 million, 1972-76; transformer station 380/220 kw., $3.14 million, 1974-77; thermoelectric plant—Gacko I, $38 million, 1972-76; thermoelectric plant—Gacko II, $38 million, 1976-80; hydroelectric plant Nevesinje and hydroelectric plant Dabar, $12.5 million, 1976-80; hydroelectric plant—Dubrovnik (Phase II), $8 million, after 1980; hydroelectric plant—Bileca, $2.35 million, after 1980. Write: Ratko Tausan, Director General, Hidroelektrane na Trebisnjici, 79300 Trebinje, Yugoslavia.

BELGIUM — Mercantile Marine Engineering and Graving Dock Co., Belgium's largest ship repair yard and one of the largest in Europe, is planning **to construct a new dry dock** at Antwerp which will accommodate vessels up to 200,000 tons. The dock will be 305 meters long by 50 meters wide, making it the biggest in the Port of Antwerp. Construction is scheduled to be completed in 1974. It will be equipped with several 100-ton cranes.

IRELAND—A company with Irish and American directors, Shannonside Holdings, has been formed to build a new **$27.3 million holiday village resort, on a 555-acre site in the Shannon estuary, County Clare.** The company intends to build a 160-room hotel (with later expansion to 500 rooms), 1,250 garden apartments and cottages for sale or rent, and a functional village. Write to: Shannonside Holdings, c/o Ignatius Houlihan, solicitor, Bindon St., Ennis, County Clare, Ireland, or J. Michael Mooney, Managing Director of the project, 10031 West Lisbon Ave., Milwaukee, Wisconsin, 53222, ★(414-463-0520).

FRANCE—Construction of a **three-star hotel** in the center of Paris, Place de Clichy, is currently in the planning stage. It will include **600 rooms, two movie theaters, three commercial centers, and a large parking area.** No starting date has yet been set for construction. Further information may be obtained by contacting: Leopold Jeoger, President, Hotel France International (Air-France), 1, square Max Hymans, 75-Paris 15, France. Tele: 273 41-41.

CANADA—Plans are in progress for the economic development of a **bulk loading facility for coking coal** at Kitson Island, two miles south of Prince Rupert, British Columbia. Aside from the bulk loading facility, which will also include a facility for general cargo containerization, the Corporate Engineer for Kitson Harbor Development Ltd., Vancouver, the firm responsible for the overall development of the port project, indicated that 2,000-3,000 acres of land would be utilized as sites for **industrial plants, a possible cop-**

per smelter, and railroad yards. Construction of the port project, which may total about $500 million before completion, is expected to begin next March. Interested U.S. suppliers are welcome to bid on the project, particularly for conveying and materials handling equipment, bulk loading equipment and containerization equipment for general cargo. Inquiries should be addressed to: Fred Morris, Corporate Engineer, Kitson Harbor Development Ltd., 1237 Burrard St., Vancouver, B.C.

UNITED ARAB EMIRATES—Sheikh Zayid Bin Sultan, Ruler of Abu Dhabi and President of UAE announced construction of an **international airport at Al Ain.** Sayyed Harib Bin Sultan, Deputy Minister of Public Works in Abu Dhabi, stated that the Council of Ministers have ordered a general study of the project. Feasibility studies are expected to be completed by the end of August and the project is estimated to cost about $11.6 million. It may take 30 to 36 months for completion.

GERMANY — **Expansion of Rheinische Braunkohle AG (coal mining)** in Hambach, presents opportunities for U.S. suppliers of giant coal dredges, earth disposal machinery and advanced belt conveyor installations, both stationary and portable. Plans call for an annual coal output of 50 million tons. Production is expected to begin towards the end of the seventies; several years will be needed to remove masses of earth covering the coal seams, some 500 meters below the surface.

ARGENTINA—Cia. Minera Aguilar S.A. (St. Joe Lead Co.) has announced the discovery of a **large body of disseminated copper** in the Province of San Juan, near the Chilean frontier. A company official said that two or more years of intensive engineering studies, very careful planning and a favorable agreement with the Argentine authorities will be needed before preparation for mining the deposit can begin. Production could begin, therefore, in about five years. Total investment could be between $200 and $250 million. There should be many opportunities for U.S. producers of mining machinery.

LEBANON — Albert Abela, Chairman and Managing Director, Albert Abela S.A.L., hopes to begin a **luxury 200-room hotel** on a beach near Beirut International Airport. The plans also provide for **22 bungalows, 128 cabins, and underground and surface parking facilities for 180 cars** (provision for another 80 cars may be added). There will be two restaurants, two bars, a night club, a marina, tennis courts and swimming pools. Cost is estimated at $4-5 million. Abela hopes to have it completed in two years. The contractor has not yet been selected. Contact Albert Abela, Starco Urban Center, P.O. Box 3202, Beirut.

CANADA—Quebec Premier Bourassa announced the James Bay Development Corp. recommendation that the **James Bay hydro-electric project** begin with the development of the La Grande River complex in the north. This plan will include **four main dams, four powerhouses, 18 spillways and control structures, and 80 miles of dykes,** will cost C$5.8 billion and will produce an installed capacity of 7.85 billion kilowatts of electricity by about 1983.

Hydro-Quebec will be given direct management responsibility for the project, temporarily. No details of financing have yet been made available. Premier Bourassa indicated that no decision would be made about the development of the southern river complex for some four or five years. Interested U.S. firms can contact Hydro-Quebec at Quebec Hydro Commission, 75 Dorchester Blvd. West, Montreal 128, P.Q.

USSR—The USSR Chamber of Commerce and Industry has announced that plans are well advanced for the construction of a **new exhibition complex, which the Soviets call "World Trade Center."** Target date for the first international exhibition is 1975, for building and road-making machinery and equipment for mechanization of construction. There are plans to erect a monorail system on the site, and the first stage will be approx. five kils. long, with considerable expansion later if the system proves successful. The Soviets have already approached the Japanese about a proposal to put up the monorail but they would like to invite U.S. companies in this field to submit proposals. Interested U.S. firms should send their inquiries to: Aleksandr K. Pavlenko, General Director of Exhibition Construction Complex, Mantulinskaya St. 5, Moscow, USSR. Cable: Moscow D-100 Complex, Telex: Moscow 126TPP Complex.

CANADA—**A publication** issued by the Metropolitan Transit Bureau of the Montreal Urban Community **concerning the construction and supply of switching equipment** (tg 0.13 and tg 0.20) to be installed in the extension to the Montreal subway system is available, without cost, from Jean Paul Dion, Supt. Engineer, Metropolitan Transit Bureau, P.O. Box 78, Station "C," Montreal 133, P.Q., Canada, ★(514-872-6940). The publication is available in French only. It contains specifications for the switching equipment and its various components, such as castings, special steel units, fasteners, fishplates and insulators. Also included are some 40 pages with information about bidding conditions, contracts, payments, permits, taxes, and insurance requirements. Tenders will be called in late 1972.

BOLIVIA—The Public Works and Development Committee of the City of Potosi has published an invitation to Bolivian consulting firms to present proposals for final designs and supervision of work on the following projects: **Potosi Airport; Bus Station; Central Market, and General Bronco-Pulmonary Hospital.** Bids closed July 28. This invitation was limited to Bolivian firms only. This announcement is reported in order to inform U.S. firms of the possibility of future construction projects. U.S. firms may obtain additional details on the above projects from: Comite de Desarrollo y Obras Publicas, Casilla 230, Potosi, Bolivia.

FRANCE—Motorola is going to erect a new **plant at Angers for the production of electric and electronic equipment for the automobile industry.** In addition to the workshops, technical, administrative and commercial offices will be installed there. Construction is scheduled to start at the beginning of 1973, and will last three years. Interested U.S. firms should contact Herve Dufresnes, Asst. to the Chairman for European Forward Planning, Motorola Inc., 15 Avenue de Segur, Paris 7.

UNIDO Schedules Meetings For Buenos Aires, New Delhi

The United Nations Industrial Development Organization (UNIDO) has scheduled two 1972 meetings to provide opportunities for local project proponents seeking external resources to meet potential joint venture partners from industrialized countries.

The first of these meetings, scheduled in Buenos Aires from October 16-25, will promote specific projects related to the machine tool industry in Latin America. During the seminar, one day or more will be reserved for pre-arranged person-to-person private interviews suitable for confidential discussions.

The second industrial promotion activity will be conducted at the UNIDO pavilion on the fairgrounds at the Third Asian International Trade Fair in New Delhi from November 3 to December 17. It will be designed to attract industrialists from Europe, North America and Japan.

Further information and registration forms for the two meetings can be obtained from Robert G. Cox, United Nations Industrial Development Organization, United Nations, New York, N.Y. 10017.

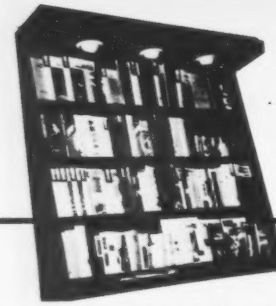
Malaysia To Prequalify Firms To Build Bridge At Kuching

The Director, Public Works Department Headquarters, Mosque Rd., Kuching, Sarawak, Malaysia, invites firms to apply for prequalification to bid for the construction of the Sungei Sarawak Bridge, Kuching. The work consists of a bridge 900 feet long with deck width of 4/12′-0″ traffic lanes and 2/6′-0″ footways. The superstructure shall be of reinforced concrete deck acting compositely with simply supported precast prestressed concrete I girders. The substructure will be of reinforced concrete construction with steel-lined cast-in-place piles 4′-0″ to 5′-0″ diameter.

The Public Works Department intends to invite tenders in November 1972 and to award the contract in February 1973. Suitably experienced contractors who wish to make application for prequalification leading to inclusion on the list of invited tenderers are invited to apply for further particulars of the contract and details of prequalification procedure to the Director, Public Works Department at the above address. Full detailed application for prequalification must be submitted by September 30.

Mexico Seeks Distillery To Produce Alcohol From Rice

One of Mexico's largest trade groups, CANACINTRA, is seeking a distillery and ancillary equipment to produce alcohol from rice. The plant will be located in the Toluca area and is planned to have a 40,000-ton-per-yr. capacity. U.S. manufacturers of such equipment may wish to utilize the U.S. Trade Center in Mexico City for a between-show promotion demonstrating such equipment, particularly by way of models or other easily transportable equipment. Interested U.S. firms should contact: U.S. Trade Center, Apartado-Postal M-2805, Mexico 1, D.F.



New Publications

When ordering any publications, indicate title and series designation, if indicated, and make checks or money orders payable to the Superintendent of Documents. Orders should be sent to the U.S. Department of Commerce, Washington, D.C. 20230, or to any of its field offices.

OFFICE OF THE SECRETARY

Transcript of press conference of Secretary Peterson in Moscow. August 1, 1972.

PATENT OFFICE

General Information Concerning Patents. Patent Office. Revised March 1972. 30¢.

MARITIME ADMINISTRATION

Relative cost of shipbuilding—a report to the Congress on the relative cost of shipbuilding in the various coastal districts of the United States. 36pp. 40¢.

OFFICE OF MINORITY BUSINESS ENTERPRISE

OMBE outlook. July 1972. Monthly publication providing information on OMBE's program and activities and others engaged in furthering business opportunities for members of minority groups. Free upon request.

DOMESTIC AND INTERNATIONAL BUSINESS

BUREAU OF DOMESTIC COMMERCE

Pulp, paper and board. July 1972. Quarterly industry report. Vol. 28, No. 2. Annual subscription $1 (25¢ more for foreign mailing). Single copy 25¢.

Franchise opportunities handbook. 192pp. $1.50. Identifies franchisors who do not discriminate on the basis of race, color, or national origin in the availability, terms, or conditions of their franchises. Provides a brief summary of the terms, requirements, and conditions under which the franchises are available.

BUREAU OF INTERNATIONAL COMMERCE

Index to foreign production and commercial reports. Index No. 6. Available from: Export Information and Services Division, Bureau of International Commerce, U.S. Department of Commerce, Washington, D.C. 20230. Free upon request.

Foreign Trade

Imports commodity by country: April 1972 (FT 135-72-4). 212pp. $1.75.

Exports commodity by country: April 1972 (FT 410-72-4). 458pp. $2.75.

Puerto Rico and U.S. Possessions: March 1972 (FT 800-72-3). 26pp. Annual subscription $2.50 (75¢ more for foreign mailing). Single copy 20¢.

International Marketing Information Service

Overseas Business Reports

Annual subscription $16 ($5 more for foreign mailing). Single copy 15¢.

Government procurement practices in developing African countries (OBR 72-021). 16pp.

Foreign trade regulations of Austria (OBR 72-031). 12pp.

Foreign trade regulations of Italy (OBR 72-032). 12pp.

Export control bulletin—supplement to Export Control Regulations (ECB-OEC-68). Subject: Exports of cattlehides. 40¢.

Basic data on the economy of the Republic of Zaire (OBR 72-019). 20pp.

Establishing a business in Kuwait (OBR 72-033). 16pp.

Market Factors in Turkey (OBR 72-037). 8pp.

Basic data on the economy of Laos (OBR 72-035). 12pp.

Establishing a business in Thailand (OBR 72-038). 24pp.

Foreign trade regulations of the Bahamas (OBR 72-042). 8pp.

World Markets for U.S. Exports

Air-conditioning and refrigeration equipment—Switzerland (IMIS 72-221). 12pp. 10¢.

Air-conditioning and refrigeration equipment — East African community (IMIS 72-223). 12pp. 10¢.

Air-conditioning and refrigeration equipment—France (IMIS 72-224). 12pp. 10¢.

Air-conditioning and refrigeration equipment—Italy (IMIS 72-226). 12pp. 10¢.

Air-conditioning and refrigeration equipment — Argentina (IMIS 72-228). 12pp. 10¢.

Foreign Economic Trends

Annual subscription $15 ($6 additional for foreign mailing). Single copy 10¢.

Turkey (ET 72-069). 12pp.
New Zealand (ET 72-070). 12pp.
Malawi (ET 72-071). 12pp.
Denmark (ET 72-072). 12pp.
Lebanon (ET 72-073). 12pp.
Togo (ET 72-076). 12pp.
Senegal (ET 72-077). 12pp.
Portugal (ET 72-074). 12pp.
Iran (ET 72-075). 12pp.
Turks and Caicos Islands (ET 72-078). 12pp.
Norway (ET 72-079). 12pp.

SOCIAL AND ECONOMIC STATISTICS

BUREAU OF THE CENSUS

Employment and population changes — Standard Metropolitan Areas and central cities (Series ES20(72)-1). 68pp. 65¢. This report combines information from the 1960 and 1970 censuses of population and the 1958 and 1967 censuses of manufacturers, retail trade, wholesale trade, and selected services.

Employment and population changes — geographic divisions and States (Series ES20(72)-3). 24pp. 30¢. This report provides data on economic change over the past decade as measured by nonagricultural employment and population in States and geographic divisions.

County Business Patterns: 1972

This is the 18th in a series of publications presenting first quarter employment and payroll statistics by county and by industry.

U.S. Summary (CBP-71-1). 312pp. plus change sheets. $2.25.

Raw materials in the U.S. economy: 1900-69 (Working paper 35). 72pp. $1. Published jointly by Department of Commerce and the U.S. Department of the Interior.

Survey of current business. Vol. 52, No. 7. July 1972. National Income issue. Annual subscription, including weekly statistical supplement $9 ($3.75 more for foreign mailing). Single copy $1.

Small-area notes. Vol. 7, No. 7. July 1972. 8pp. 10¢.

Agriculture

1969 Census of Agriculture

New Mexico (Vol. 1, part 42). 580pp. $4.25 (paper).

North Carolina (Vol. 1, part 26, sec. 1. Summary data). 374pp. $2.75 (paper).

North Carolina (Vol. 1, part 26, sec. 2. County data). Alamance Co.-Iredell Co. 398pp. $3 (paper).

North Carolina (Vol. 1, part 26, sec. 2. County data). Jackson Co.-Yancey Co. 413pp. $3 (paper).

Kentucky (Vol. 1, part 30, sec. 1. Summary data). 361pp. $2.75 (paper).

Kentucky (Vol. 1, part 30, sec. 2. County data). Adair Co.-Kenton Co. 486pp. $3.50 (paper).

Kentucky (Vol. 1, part 30, sec. 2. County data). Knott Co.-Woodford Co. 493pp. $3.75 (paper).

Oklahoma (Vol. 1, part 36, sec. 1. Summary data). 368pp. $2.75 (paper).

Oklahoma (Vol. 1, part 36, sec. 2. County data). 630pp. $4.50 (paper).

Tennessee (Vol. 1, part 31, sec. 1. Summary data). 388pp. $3 (paper).

Tennessee (Vol. 1, part 31, sec. 2. County data). Anderson Co.-Knox Co. 388pp. $3 (paper).

Tennessee (Vol. 1, part 31, sec. 2. County data). Lake Co.-Wilson Co. 389pp. $3 (paper).

Delaware (Vol. 1, part 22). 330pp. $2.50 (paper).

Georgia (Vol. 1, part 28, sec. 1. Summary data). 406pp. $3 (paper).

Georgia (Vol. 1, part 28, sec. 2. County data). Appling Co.-Jasper Co. 646pp. $4.75 (paper).

Georgia (Vol. 1, part 28, sec. 2. County data). Jeff Davis Co.-Worth Co. 645pp. $4.75 (paper).

Kentucky (Vol. 1, part 30, sec. 2. County data). Adair Co.-Kenton Co. 486pp. $3.50 (paper).

Mississippi (Vol. 1, part 33, sec. 2. County data). 670pp. $5 (paper).

New Hampshire (Vol. 1, part 2). 388pp. $3 (paper).

Rhode Island (Vol. 1, part 5). 344pp. $2.75 (paper).

South Carolina (Vol. 1, part 27). 752pp. $5.50 (paper).

Texas (Vol. 1, part 37, sec. 1. Summary data). 432pp. $3.25 (paper).

Texas (Vol. 1, part 37, sec. 2. County data). Anderson Co.-Galveston Co. 686pp. $5 (paper).

Texas (Vol. 1, part 37, sec. 2. County data). Garza Co.-Montague Co. 685pp. $5 (paper).

Texas (Vol. 1, part 37, sec. 2. County data). Montgomery Co.-Zavala Co. 685pp. $5 (paper).

Vermont (Vol. 1, part 3). 420pp. $3.25 (paper).

West Virginia (Vol. 1, part 25, sec. 1. Summary data). 326pp. $2.50 (paper).

West Virginia (Vol. 1, part 25, sec. 2. County data). 446pp. $3.50 (paper).

Construction and Housing

Characteristics of new one-family homes: 1971 (C25-71-13). This issue $2. Annual subscription, including, in addition to the annual, 12 monthly reports (includes four quarterly supplements), $3. Covers homes sold and contractor-built, owner-built, and rental homes started. Also covers characteristics of new one-family homes completed during the year.

Expenditures on residential additions, alterations, maintenance and repairs, and replacements. 1971 annual report — Part 1: all residential properties (C50-71A). 32pp. 50¢.

Housing starts: June 1972 (C20-72-6). 20pp. Annual subscription $2. Single copy 20¢.

1970 Census of Housing

Metropolitan Housing Characteristics, by Standard Metropolitan Statistical Areas

Abilene, Tex. (HC(2)-2). 48pp. 55¢.

Akron, Ohio (HC(2)-3). 64pp. 65¢.

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Detailed housing characteristics for the United States, regions, divisions, and States: 1970 (Series HC(S1)-6). 20¢.

Distribution and Services

Green coffee—inventories, imports, roastings: second quarter 1972 (BG41-72-2). Annual subscription $1.

Monthly retail trade—sales and accounts receivable: May 1972 (BR-72-5). 25¢.

Monthly selected services receipts: June 1972 (BS-72-6). Annual subscription $1. Single copy 10¢.

Monthly department store sales in selected areas: June 1972 (BD-72-6). Annual subscription $1. Single copy 10¢.

Estimated weekly retail sales of U.S. retail stores for week ending August 5 (CB 72-198). 2pp. 10¢.

Estimated weekly retail sales of U.S. retail stores for week ending August 12 (CB-72-203). 2pp. 10¢.

Foreign Trade

General imports — cotton manufactures: June 1972 (FT 130-72-6). 12pp. Annual subscription $1. Single copy 10¢.

Bunker fuels: June 1972 (FT 810-72-6) 2pp. Annual subscription $1. Single copy 10¢.

Airborne exports and general imports: June 1972 (FT 986-72-6). 4pp. Annual subscription (FT 900, 975, 985 and 986 combined) $3. Single copy 10¢.

Governments

Construction expenditure of State and Local Governments: April-June 1972 (GC72 No. 2). 4pp. 25¢.

Industry

Annual survey of manufactures: 1970 (M70(AS)-6.9). Statistics for Divisions and States. Part Nine. Pacific Division. 18pp. 50¢.

Current Industrial Reports

Complete aircraft and aircraft engines: summary for 1971 (Series: M37G(71)-13). Change sheet.

Hardwood plywood: 1971 (Series: MA-24F(71)-1). 8pp. 25¢.

Wiring devices and supplies: 1971 (Series: MA-36K(71)-1). 8pp. 25¢.

Home-type radio receivers and television sets, automobile radios, phonographs, and record player attachments: 1971 (Series: MA-36M(71)-1). 8pp. 25¢.

Flat glass: summary for 1971 (Series: MQ-32A(71)-5). 8pp. $1 per year. Single copy 25¢.

Backlog of orders for aerospace companies: summary for 1971 (Series: MQ-37D(71)-5). 8pp. $2.50 per year (including MA-37E and M37G). Single copy 25¢.

Population

1970 Census of Population

Detailed Characteristics

Alaska (PC(1)-D3). 337pp. $2.50.

Maine (PC(1)-D21). 335pp. $2.50.

Montana (PC(1)-D28). 335pp. $2.50.

New Mexico (PC(1)-D33). 483pp. $3.50.

Vermont (PC(1)-D47). 333pp. $2.50.

Wyoming (PC(1)-D52). 333pp. $2.50.

1970 occupation and industry classification systems in terms of their 1960 occupation and industry elements (Technical paper 26). 72pp. 65¢. Designed to aid data-users in comparing 1960 and 1970 census data by quantifying the interrelationships between the two systems.

Employment status of the U.S. population: 1970 (PC(S1)-22). 4pp. 10¢.

Census Tracts

Akron, Ohio (PHC(1)-2). 104pp. $1.

Albany-Schenectady-Troy, N. Y. (PHC (1)-4). 118pp. $1.50.

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Population Estimates and Projections

Estimates of the population of the United States to May 1, 1972 (Series P-25, No. 485). 2pp. 5¢.

ECONOMIC DEVELOPMENT ADMIN.

Economic development. July 1972. Vol. 9, No. 7. Annual subscription $1 (50¢ more for foreign mailing). Single copy 15¢.

Urban business profiles. April 1972. A new series of reports designed to introduce the prospective small businessman to selected urban-oriented businesses. The following are now available:

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Supermarkets. 32pp. 30¢.

Supplement to the urban business profile series. 16pp. 20¢.

SCIENCE & TECHNOLOGY

NATIONAL OCEANIC & ATMOSPHERIC ADMIN.

NOAA. July 1972. Vol. 2, No. 3. Annual subscription $3 (75¢ more for foreign mailing). Single copy 75¢. Quarterly.

Monthly weather review. Vol. 100, No. 6. June 1972. Annual subscription $10.50 ($2.75 more for foreign mailing). Single copy $1.

National Ocean Survey

Tide tables—high and low water predictions: 1973. Europe and West Coast of Africa, including the Mediterranean Sea. 210pp. $2.

Environmental Data Service

Climates of the States: Minnesota. No. 60-21. Revised June 1972. 20pp. 20¢.

Climates of the States: New York. No. 60-30. Revised June 1972. 30pp. 25¢.

Mariners weather log. Vol. 16, No. 4. Available from the Environmental Data Service, Gramax Building (D54), 8060 13th St., Silver Spring, Md. 20910.

Environmental Research Laboratories

Preliminary determination of epicenters. Monthly listing. March 1972. Annual subscription $1.50 (50¢ more for foreign mailing). Single copy 15¢.

Juan de Fuca Ridge and Sovanco fracture zone RP-5-OC-71 (ERL 234-POL 11). 44pp. 50¢.

Effects of solar disturbances on radio communications with aircraft (ERL 233-SEL 22). 56pp. 55¢.

Winds-Aloft observations. No. 5. Effective September 1, 1972. Supersedes fifth edition of WBAN Circular O. $1.50.

Earthquake information bulletin. May-June 1972, Vol. 4, No. 3. Annual subscription $1.50 (50¢ more for foreign mailing). Single copy 30¢.

Sea surface topography from space—Volume II (ERL 228-AOML 7-2). 152pp. $1.25. Proceedings of a conference sponsored jointly by NOAA, NASA and the U.S. Navy, Key Biscayne, Fla., Oct. 6-8, 1971.

Recorded and processed seismic data from the 1971 San Fernando earthquake and aftershocks by the Nevada special projects party (ERL 235-ESL 20). 40pp. 45¢.

Exploration methods for the continental shelf: geology, geophysics, geochemistry (ERL 238-AOML 8). 52pp. 50¢.

Temperature sounding from satellites (Tech. Report NESS 59). 54pp. 55¢. The theory relating satellite radiance measurements to temperatures in the atmosphere for both cloudless and cloudy conditions is presented.

National Marine Fisheries Service

Commercial fisheries—review. May-June 1972. Vol. 34, Nos. 5-6. Annual subscription $7 ($2 more for foreign mailing). Single copy 60¢.

NATIONAL BUREAU OF STANDARDS

70 years of service. 1971 annual report. 100pp. $1.

Specifications and tolerances for reference standards and field standard weights and measures. 1. Specifications and tolerances for field standard weights (NBS Class F). NBS Handbook 105-1 (revised 1972). July 1972. 12pp. 25¢.

Radiation safety for X-ray diffraction and fluorescence analysis equipment. NBS Handbook 111. June 1972. 20pp. 30¢.

National electrical safety code—Part 1. Rules for the installation and maintenance of electrical supply stations and equipment (NBS Handbook 110-1). June 1972. Supersedes NBS Handbook H31 and pp. 31 through 75 of NBS Handbook H30. 43pp. 30¢.

Standard reference materials: methods of analysis of NBS clay standards (Spec. Publ. 260-37). 86pp. 75¢.

Publications of the National Bureau of Standards 1971 catalog (Spec. Publ. 305, Suppl. 3). 342pp. $3.

Building research translation: use of an air-to-air heat exchanger to recover heat from air exhausted by mechanical ventilation (Tech. Note 710-5). 62pp. 60¢.

A simple correction procedure for quantitative electron probe microanalysis (Tech. Note 719). 49pp. 55¢.

A computer terminal network for transparent stimulation of the user of an online retrieval system (Tech. Note 732). 39pp. 45¢.

OMNITAB II segmentation structure for the SCOPE operating system (Tech. Note 734). 25pp. 35¢.

Physics and chemistry. Vol. 76A, No. 3. May-June 1972. Section A. Annual subscription $9.50 ($2.25 more for foreign mailing). Single copy price varies. This issue $1.75.

Optical radiation measurements: fundamental principles of absolute radiometry and the philosophy of this NBS program (1968 to 1971) (Tech. Note 594-1). 59pp. 60¢.

Longitudinal magnetoresistance in polar semiconductors (Tech. Note 614). 50pp. 50¢.

Thermophysical properties of parahydrogen from the freezing liquid line to 5000 R for pressures to 10,000 psia (Tech. Note 617). 169pp. $1.50.

Calibration of secondary standard magnetic tape cassettes (computer amplitude reference) phase 1 (Tech. Note 731). 60pp. 60¢.

Physics and chemistry. Vol. 76A, No. 4. July-August 1972. Section A. Annual subscription $9.50 ($2.25 more for foreign mailing). Single copy price varies. This issue $1.25.

Technical news bulletin. August 1972. Vol. 56, No. 8. Annual subscription $3 ($1 more for foreign mailing). Single copy 30¢.

Paper honeycomb sandwich panels as lightweight structural components (BSS 43). 12pp. Single copy 25¢. This paper presents a resume of current practice in the U.S. with regard to the use of sandwich panels in single-story buildings.

Reference tables for low-temperature thermocouples (Monogr. 124). 61pp. 60¢. The experimental program to establish low-temperature reference tables for the commonly-used thermocouples has been completed. Details of the experimental system, instrumentation, data analysis, error analysis, and materials tested are given.

Solid state chemistry (Spec. Publ. 364). 799pp. $7.50. (Buckram cover.) This book presents the proceedings of the 5th Materials Research Symposium on "solid state chemistry" held at the National Bureau of Standards, Gaithersburg, Maryland on October 18-21, 1971.

Analytical chemistry: key to progress on national problems (Spec. Publ. 351). 481pp. (hard cover). $3.50. Formal report of the proceedings of the 1971 Summer Symposium in Analytical Chemistry held at NBS, June 16-18, 1971.

Organic chemistry section: summary of activities, July 1970 to June 1971 (Tech. Note 587). 131pp. $1.25.

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